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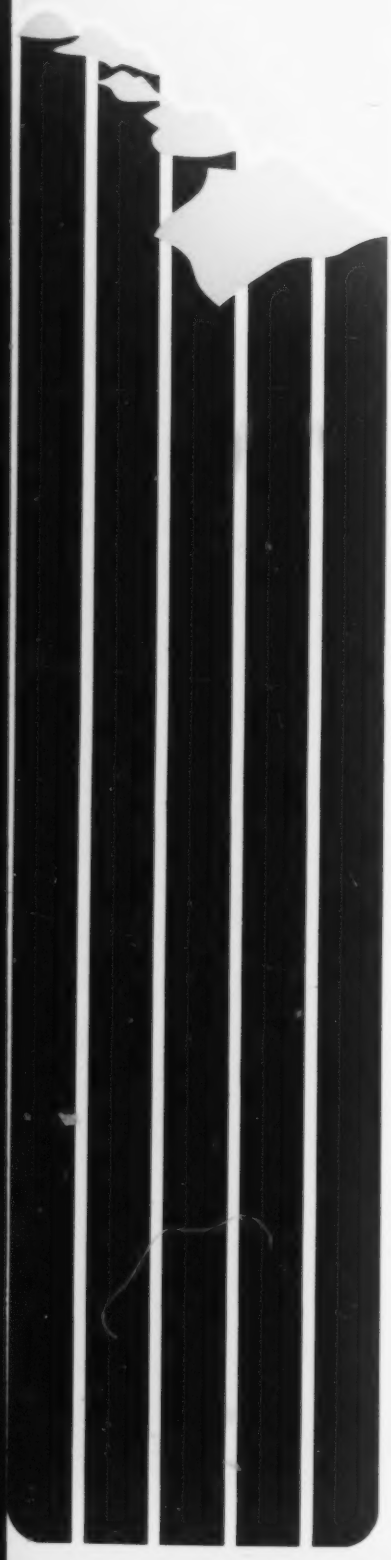

STATISTICAL & ECONOMIC REPORT

- Economy: Recent Trends and Outlook
- Forecasts and Population Projections to 2010
- Statistical Tables

4th QUARTER 1988

STATE OF HAWAII • 1959 •

This quarterly report has been prepared by the Research and Economic Analysis Division of the State Department of Business and Economic Development (DBED). It presents information and analysis concerning current statistical and economic trends affecting Hawaii. Technical notes and source descriptions have been kept to a minimum. However, the staff of the Research and Economic Analysis Division will be happy to respond to any inquiries of a technical nature that readers may have (548-3067).

The report was prepared under the direction of Dr. Richard Y. P. Joun, Head, Research and Economic Analysis Division, by Sharon Nishi, Robert Shore, and Tu Duc Pham.

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1. The Economy -- Recent Trends and Outlook

Business activity in the State continued to exhibit robust growth throughout 1988 as the State's largest industry, tourism, experienced its first six million-visitor year and construction activity remained intense.

Nationally, despite continuation of moderate economic growth, worries continued to mount over steadily rising interest rates and high levels of debt in both the public and private sectors of the economy. While most economists generally forecast continued steady growth in 1989, some feel that the risk of a recession has increased.

The outlook for Hawaii is some moderation of growth in 1989 as the past three-year surge in tourism and construction cools down, but with the possibility of stepped-up inflation as the demand for entry level labor continues to outstrip the supply at current wage rates.

CURRENT ECONOMIC CONDITIONS

Hawaii's Economy

Economic activity in the State continued at a brisk pace throughout 1988. Business transactions, as measured by general excise tax payments, showed a 13 percent increase from January through November 1988. Construction receipts showed the sharpest gain over the first eleven months at 26 percent, followed by diversified agriculture at 14 percent. Retailing and services showed gains of 12 and 15 percent, respectively, for the first eleven months of 1988.

While these impressive gains in business transactions partly reflect somewhat more inflation than last year, they are mainly the result of a sustained upsurge in tourism and investment spending in the State. That growth began with a sharp, post-recession recovery in construction in 1985, which was followed by the exchange rate-driven surge in Japanese tourism beginning in 1986. By 1987, the entire economy was feeling the stimulating impact of growth in these two sectors of the economy.

By mid-1988, the pace of economic growth had driven Hawaii's unemployment rate to record lows for the State and to one of the lowest rates in the nation. Personal income in Hawaii since the last quarter of 1987 has grown at an annual rate of nearly 10 percent, well above the 7 to 8 percent rate of personal income growth in the nation as a whole. By late 1988, the higher labor costs and labor shortages brought on by a shrinking pool of young people entering the labor market had become a serious cause for concern among many business firms.

Compared to the strength in business receipts and personal income growth, the modest increase in total jobcount (Table 4-4) of just 2.1 percent appears unreasonably low. However, it is expected that substantial revisions in jobcount estimates in the near future will bring them more in line with other indicators.

Tourism to Hawaii registered 6.1 million visitor arrivals in 1988, up 5.8 percent from the year before. Westbound visitors, primarily from the U.S. Mainland and Canada, increased 1.6 percent in number for the year while in the eastbound direction, visitors coming from Asia and the Pacific showed a 17.4 percent increase. As in 1987, weakness in the westbound market was more than offset by the surge in eastbound tourism, primarily from Japan. Official estimates of visitor spending in 1988 will not be available for some months.

Tourism in the fourth quarter of 1988 showed a 7.0 percent increase in terms of total arrivals, which was consistent with increases during the rest of the year. However, an interesting change in the mix of

visitors occurred in the fourth quarter which may give a clue to the outlook for 1989. The eastbound visitor total for the fourth quarter increased only 5.2 percent from the year before, the slowest increase in a calendar quarter for this market since the fourth quarter of 1985. On the other hand, westbound visitor traffic posted a 7.8 percent gain, which is that market's strongest quarterly increase since the last quarter of 1986. The fourth quarter results may signal the beginning of a moderation in eastbound tourism and a return to more normal growth in the westbound market. Overall, this change in mix would suggest a more modest rate of increase in tourism for 1989 than has been experienced in the past two years.

National Economic Situation

Hawaii's robust economy over the past several years has been due in large part to stable economic growth nationally. That stability continued through the last half of 1988, with real Gross National Product (GNP) advancing at a modest annual rate of 2.4 percent, down somewhat from a brisk 3.2 percent annual rate in the first half of the year. Average unemployment in the nation fell below the 5.5 percent level in the second half of 1988, to levels not seen in well over a decade.

Despite the economy's overall stability, apprehension has been mounting over the possibility of a recession in the near future as the Federal Reserve continues to pursue tighter monetary policies to maintain control over inflation. Short-term interest rates rose steadily during 1988 resulting in a prime rate of 10.5 percent by the end of the year, with the probability of further increases in early 1989. Economists have been surprised by the strength of the economy in the face of higher rates and think that the Federal Reserve may be forced to tighten credit even more to slow the economy. Further tightening, on the other hand, increases the risks of a recession.

A national recession would be particularly worrisome for the bond market and the Federal government. A recession would undercut the earnings of corporations at a time when many of them have taken on substantial debt, especially in connection with either preventing or accomplishing corporate takeovers. A significant drop in earnings raises the possibility that many corporations may not be able to meet their interest payments on debt. For the Federal government, a recession would worsen the already precarious situation for the trouble-plagued savings and loan industry, the deposits of which the Federal government insures. It would also slow tax receipts and slow, if not reverse, recent progress made in reducing the Federal deficit.

OVERALL ECONOMIC OUTLOOK

Currently, there is considerably more divergence in economic forecasts for the U.S. economy than has been seen in recent years. The 1989 GNP forecasts of fifty leading economic forecasters compiled by the publication *Blue Chip Economic Indicators*, range from a bullish 4.0 percent to an anemic 1.0 percent. The average of the forecasts indicates a 2.7 percent GNP growth in 1989, well below the 3.8 percent growth estimated for 1988. The puzzling strength of the U.S. economy in the face of tightening credit conditions is part of the reason for the divergence in forecasts. Some economists predict a slowdown in economic activity rather soon in the face of existing credit conditions, while many others expect continued strength and rising rates through the year. On the average, forecasters expect short-term interest rates to average almost a full percentage point higher in 1989 than in 1988, although the peak in interest rates should be reached in the second quarter of the year.

For 1990, the major forecasts show even more divergence with expectations for real GNP growth ranging from a high of 3.3 percent to a low of -2.0 percent (which can be interpreted as a serious recession). The "average" GNP forecast for 1990 anticipates a modest 1.7 percent growth. Table 1-1 contains the economic forecast for the U.S. through 1990.

The economic outlook for Hawaii will depend critically on the performance of the

Table 1-1
U.S. Economic Forecast to 1990

	Estimates		Forecast				Estimate	Forecast	
	3Q'88	4Q'88	1Q'89	2Q'89	3Q'89	4Q'89	1988	1989	1990
Annualized % growth rates	Quarterly data						Annual data		
Real GNP	2.5	2.4	4.3	2.1	1.7	1.3	3.8	2.7	1.7
Industrial Production	6.6	4.1	3.3	2.6	2.0	1.2	5.2	3.3	1.7
GNP deflator	4.7	4.3	4.3	4.4	4.4	4.3	3.1	4.4	4.3
Consumer price index	4.8	4.6	4.8	4.7	4.8	4.8	4.1	4.7	4.7
Real disposable income	5.6	3.7	3.0	1.7	1.9	1.7	3.2	2.6	4.7
Ave. % rate for period									
Unemployment rate	5.5	5.3	5.3	5.3	5.4	5.5	5.5	5.4	5.7
3-mo.Treas. bill rate	7.0	7.7	8.1	8.1	7.8	7.5	6.5	7.8	7.3
AAA corp. bond rate	10.0	9.7	9.9	10.0	9.8	9.6	9.9	9.5	9.3

Source: Eggert Economic Enterprises, Inc., Blue Chip Economic Indicators, January 10, 1989 and December 10, 1988.

Table 1-2
SUMMARY FORECAST FOR HAWAII TO 1990

	Estimate		Forecast		Forecast	
	1988	% Change	1989	% Change	1990	% Change
Gross State Product						
Millions of current dollars	21,563	9.5	23,450	8.7	25,361	8.1
Millions of constant 1982 dollars	17,313	5.3	17,932	3.6	18,469	3.0
GSP deflator index (1982=100)	124.5	4.0	130.8	5.0	137.3	5.0
Visitor arrivals (millions)	6.1	6.0	6.5	5.0	6.7	4.0
Consumer Price Index (CPI-U) (1982-84=100)	121.8	6.0	129.1	6.0	135.5	5.0
Personal Income						
Millions of current dollars	18,469	8.8	20,091	8.8	21,690	8.0
Millions of constant 1980 dollars	12,577	2.7	12,907	2.6	13,271	2.8
Total Jobs (thousands)	524.2	3.0	538.3	2.7	551.7	2.5
Construction, real value (constant 1972 dollars)	897.4	14.1	980.8	9.3	1,040.1	6.0

Source: Department of Business and Economic Development, Hawaii Econometric Modeling Project, February 1989.

U.S. and world economies in the coming months. Given the uncertainties and problems confronting the U.S. economy and the international financial system, any drastic change in exchange rates, interest rates, and economic growth rates which may occur will be felt in Hawaii within months. A recession in the U.S. economy would obviously adversely affect the growth of westbound visitor arrivals. A sharp increase in interest rates would most affect the construction industry.

In spite of those uncertainties, there is confidence that Hawaii's economy will perform better than the national economy during 1989 for a couple of reasons centering on the strength of Hawaii's foreign markets. First, the continued balance-of-payment surplus of Japan coupled with the lower value of the dollar will help continue the growth of Japanese visitors to the State. Second, the same surplus in the Japanese foreign account will tend to encourage further investment in the State's economy, providing continued support for the construction industry.

The growth of Japanese tourism will continue during 1989, although this growth will not be as strong as in 1988. This is because the more stable dollar-yen exchange rate will tend to slow the growth rate in Japanese visitor expenditures from the high levels of recent years. Specifically, Japanese tourism growth is expected to be about 8 percent in 1989, while the growth in Mainland visitor arrivals is forecast at 4 percent. The overall growth of visitor arrivals is forecast at about 5 percent in 1989.

Growth of the construction industry will continue in 1989. Barring any significant increases in interest rates, real construction expenditures will increase 9.3 percent in 1989, down from 14 percent in 1988. This growth would place the construction activity in 1989 at an all-time high level, surpassing even the record-high level achieved in 1975.

Continued growth, even at a more modest pace, may have its down side, however. The inflation rate in Hawaii, as measured by the Honolulu Consumer Price Index (CPI), will likely increase more than 6 percent in 1989, well above the projected U.S. CPI rate of 4.7 percent for 1989. The single-family housing construction cost index has been increasing 5.7 percent between January and September of 1988. The average sale price of single-family housing, however, is probably increasing faster than the construction cost index, as evidenced by the rapid increase in the housing component of the Honolulu CPI which registered a 6.8 percent increase between the second quarter of 1987 and 1988. High prices and increased demand have stimulated single-family housing construction which reached a record-high level of over 6,000 units (authorized for construction) in 1987 and 1988. This is almost three times the 2,300 units authorized in 1982.

Unfortunately, unsubsidized housing prices, as recently proposed by private developers in most housing development plans, are beyond the reach of average families, especially young families. Thus, the demand for affordable housing will likely continue to exceed the supply in the near future. The current tight labor market situation in Hawaii will also continue, unless a national recession increases the unemployment rate or excessive in-migration increases the number of Mainland or foreign workers looking for jobs.

Needless to say, however, a strong economy is much better than a depressed economy, although its side effects will require the attention of policy makers. A summary of the short-run economic outlook for Hawaii appears in Table 1-2.

DBED ECONOMETRIC FORECAST: 1989 to 1993

Tables 1-3 to 1-6 contain the current, detailed DBED intermediate range (five-year) economic base forecast for Hawaii for the period 1989 to 1993. The forecast is based on results of the Hawaii Econometric Model maintained by the Research and Economic Analysis Division, which utilizes the most recent economic data and national forecasts available. While the forecast is made with the

most recent information available, uncertainty of the forecast will increase in the more distant years of the forecast and it will no doubt need revision as unforeseen events and conditions intervene. The forecast will be updated quarterly.

Underlying Hawaii's forecast is the assumption of a U.S. economy growing modestly throughout the period. None of the 50 forecasts of the Blue Chip survey currently expect a recession in 1989, thus another year of at least modest national growth is likely. For 1990, the major forecasts show a higher possibility of a recession, although the average of the forecasts is a 1.7 percent growth rate. For any particular year beyond 1990, GNP growth is all but impossible to predict since it will depend a great deal on the direction growth takes in 1989 and 1990 and whether a recession actually occurs. Therefore, the underlying GNP growth assumption for 1991 to 1993 is simply the long-term expected growth rate--about 2.5 percent. It is, of course, unlikely that growth will be a consistent 2.5 percent per year after 1990, as the forecast indicates. However, the assumption ultimately results in a realistic forecast for GNP in 1993. Once there are clear signs that the current business cycle is entering a new phase, estimates of the depth and duration of the new phase can be incorporated in future econometric forecasts.

Given the above assumption about overall economic growth in the U.S., short- and long-term interest rates are expected to peak in 1989 but remain somewhat elevated over the 1990 to 1993 period. Consumer inflation at the local level is expected to remain at a 6 percent annual rate of increase before easing to an average 5 percent rate between 1990 and 1993.

The growth rate in visitor arrivals is expected to soften from the anticipated 5 percent in 1989 to its expected long-run rate of 3.5 percent by 1991.

Under these circumstances Hawaii's economy will experience a trend towards more modest growth over the next five years. Total jobs will increase from 524,000 in 1988 to 589,000 in 1993. Growth will continue to be highest in the service sector. Construction will continue to experience growth in the absence of either very high interest rates or a national recession. Residential construction and non-tourism-related commercial construction are expected to lead growth in 1989. Beyond 1990, the outlook for construction in detail is not readily discernable. However, if the national economy and visitor demand behave as forecast, the industry's overall growth should average about 4 percent per year.

Obviously, a national recession (which is a very real possibility within the next few years) or other significant economic event will affect the accuracy of particular years in this forecast. However, even if a recession occurs within the next year or two, and lasts for the six to eighteen months of the typical recession, the expected acceleration in growth after such a recession could produce levels of economic activity in 1993 which approach the forecast levels.

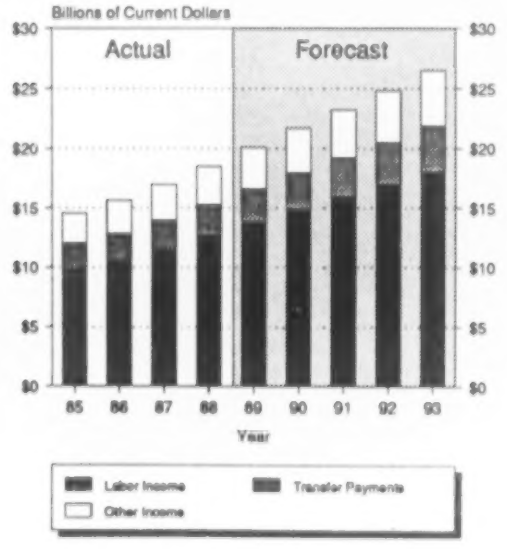
DBED INTERMEDIATE RANGE ECONOMIC FORECAST FOR HAWAII
RESEARCH AND ECONOMIC ANALYSIS DIVISION
FEBRUARY 1989

TABLE 1-3
KEY ECONOMIC ASSUMPTIONS

	1985	1986	1987	1988	1989	1990	1991	1992	1993
Value		Actual or Estimated			Forecast				
HONOLULU CPI-U (1967=100)	294.1	301.2	316.6	335.6	355.7	373.5	392.1	411.8	432.3
VISITOR ARRIVALS (THOUS)	4,884.1	5,607.0	5,797.6	6,145.4	6,452.7	6,710.8	6,945.7	7,188.8	7,440.4
TOTAL POPULATION (THOUS)	1,051.2	1,063.8	1,082.1	1,092.8	1,110.8	1,127.5	1,142.1	1,159.3	1,176.7
MORTGAGE RATE (%)	11.7	10.3	9.3	10.3	11.0	10.5	10.5	10.5	10.5
PRIME RATE (%)	9.9	8.3	8.2	9.3	10.1	9.5	9.5	9.5	9.5
REAL GNP GROWTH(%)	3.4	2.8	3.4	3.8	2.7	1.7	2.5	2.5	2.5
Annual percent growth									
HONOLULU CPI-U	3.3	2.4	5.1	6.0	6.0	5.0	5.0	5.0	5.0
VISITOR ARRIVALS	0.6	14.8	3.4	6.0	5.0	4.0	3.5	3.5	3.5
TOTAL POPULATION	1.4	1.3	1.7	1.0	1.6	1.5	1.3	1.5	1.5

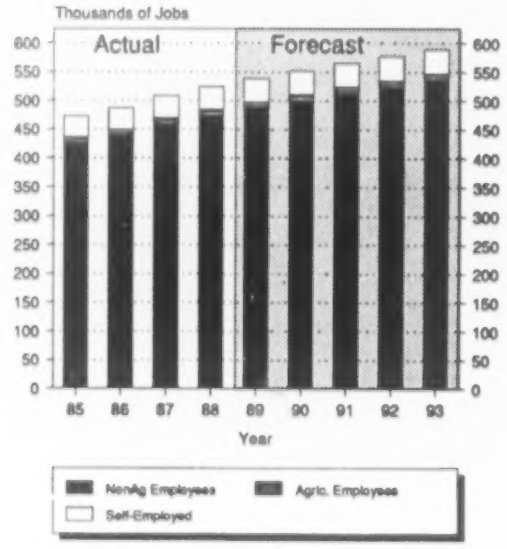
Source: Department of Business and Economic Development, Hawaii Econometric Forecasting Project, February 1989.

FIGURE 1-1
PERSONAL INCOME PROJECTIONS



SOURCE: DBED, Dept. of Comm. Data Series

FIGURE 1-2
EMPLOYMENT PROJECTIONS



SOURCE: DBED, Base on DLIR Data Series

TABLE 1-4

PROJECTED PERSONAL INCOME

CURRENT DOLLARS

	1985	1986	1987	1988	1989	1990	1991	1992	1993
	Actual or Estimated				Forecast				
Millions of dollars									
PERSONAL INCOME	14,575.3	15,636.4	16,973.0	18,469.1	20,090.9	21,690.4	23,206.0	24,793.7	26,479.5
LABOR INCOME	9,940.0	10,623.1	11,610.0	12,688.3	13,826.8	14,910.0	15,892.4	16,919.4	18,001.5
WAGES & SALARIES	9,183.2	9,781.5	10,669.0	11,652.9	12,691.6	13,680.0	14,576.3	15,513.4	16,500.6
OTHER	756.8	841.6	941.0	1,035.5	1,135.2	1,230.1	1,316.1	1,406.1	1,500.8
PROPERTY INCOME	2,188.9	2,319.3	2,506.0	2,692.0	2,892.9	3,086.0	3,292.7	3,514.2	3,751.6
PROPRIETORS INCOME	1,050.0	1,214.8	1,309.0	1,435.1	1,577.2	1,732.9	1,889.5	2,041.8	2,203.3
TRANSFER PAYMENTS	2,074.0	2,195.1	2,326.0	2,522.9	2,759.8	3,019.0	3,271.4	3,544.9	3,841.2
Less: SOCIAL INS. CONTR.	(677.6)	(715.9)	(778.0)	(869.2)	(965.8)	(1,057.5)	(1,140.0)	(1,226.5)	(1,318.1)
Annual (%) growth rates									
PERSONAL INCOME	6.9	7.3	8.5	8.8	8.8	8.0	7.0	6.8	6.8
LABOR INCOME	6.5	6.9	9.3	9.3	9.0	7.8	6.6	6.5	6.4
WAGES & SALARIES	7.0	6.5	9.1	9.2	8.9	7.8	6.6	6.4	6.4
OTHER	0.7	11.2	11.8	10.0	9.6	8.4	7.0	6.8	6.7
PROPERTY INCOME	6.8	6.0	8.0	7.4	7.5	6.7	6.7	6.7	6.8
PROPRIETORS INCOME	12.0	15.7	7.8	9.6	9.9	9.9	9.0	8.1	7.9
TRANSFER PAYMENTS	6.8	5.8	6.0	8.5	9.4	9.4	8.4	8.4	8.4
SOCIAL INS. CONTR.	7.9	5.7	8.7	11.7	11.1	9.5	7.8	7.6	7.5

CONSTANT DOLLARS

	1985	1986	1987	1988	1989	1990	1991	1992	1993
	Actual or Estimated				Forecast				
Millions of 1980 dollars									
PERSONAL INCOME	11,322.6	11,862.2	12,251.4	12,576.7	12,906.7	13,270.7	13,521.9	13,759.1	13,994.9
LABOR INCOME	7,721.8	8,059.0	8,380.3	8,640.3	8,882.5	9,122.3	9,260.3	9,389.3	9,514.1
WAGES & SALARIES	7,133.9	7,420.5	7,701.1	7,935.2	8,153.3	8,369.7	8,493.5	8,609.0	8,720.9
OTHER	587.9	638.5	679.2	705.1	729.2	752.6	766.9	780.3	793.2
PROPERTY INCOME	1,700.4	1,759.5	1,808.9	1,833.1	1,858.5	1,888.1	1,918.6	1,950.2	1,982.8
PROPRIETORS INCOME	815.7	921.6	944.9	977.2	1,013.2	1,060.2	1,101.0	1,133.1	1,164.5
TRANSFER PAYMENTS	1,611.2	1,665.3	1,678.9	1,718.0	1,772.9	1,847.1	1,906.2	1,967.2	2,030.1
Less: SOCIAL INS. CONTR.	(526.4)	(543.1)	(561.6)	(591.9)	(620.5)	(647.0)	(664.3)	(680.7)	(696.6)
Annual (%) growth rate									
PERSONAL INCOME	3.5	4.8	3.3	2.7	2.6	2.8	1.9	1.8	1.7
LABOR INCOME	3.1	4.4	4.0	3.1	2.8	2.7	1.5	1.4	1.3
WAGES & SALARIES	3.6	4.0	3.8	3.0	2.7	2.7	1.5	1.4	1.3
OTHER	-2.5	8.6	6.4	3.8	3.4	3.2	1.9	1.7	1.7
PROPERTY INCOME	3.4	3.5	2.8	1.3	1.4	1.6	1.6	1.6	1.7
PROPRIETORS INCOME	8.4	13.0	2.5	3.4	3.7	4.6	3.8	2.9	2.8
TRANSFER PAYMENTS	3.4	3.4	0.8	2.3	3.2	4.2	3.2	3.2	3.2
SOCIAL INS. CONTR.	4.5	3.2	3.4	5.4	4.8	4.3	2.7	2.5	2.3

Source: Department of Business and Economic Development, Hawaii Econometric Modeling Project, February 1989.

TABLE 1-5
PROJECTED JOBS BY SECTOR

	1985	1986	1987	1988	1989	1990	1991	1992	1993
	Actual or Estimate				Forecast				
Thousands									
TOTAL JOBS	472.9	486.9	509.0	524.2	538.3	551.7	564.7	577.0	589.2
CONSTRUCTION	17.1	18.7	21.0	22.3	24.1	25.4	26.2	27.2	28.1
MANUFACTING	21.9	22.1	22.1	21.7	21.8	21.9	21.9	21.9	21.9
DURABLE	3.6	3.8	4.0	4.0	4.2	4.4	4.5	4.6	4.7
NONDURABLE	18.3	18.3	18.1	17.6	17.6	17.5	17.4	17.3	17.2
FOOD PROCESSING	10.1	10.2	10.1	9.6	9.5	9.4	9.2	9.1	9.0
TEXTILES	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
TRANSPORTATION	23.4	24.4	26.7	27.8	28.7	29.5	30.3	31.0	31.8
COMMUNICATIONS & UTIL.	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
TRADE	115.7	117.9	123.4	127.5	131.9	136.1	140.1	143.8	147.3
RETAIL	96.1	98.4	103.0	106.4	110.2	113.9	117.4	120.7	123.9
EAT & DRINK	40.5	42.1	43.8	45.6	47.4	49.0	50.5	52.2	53.9
WHOLESALE	19.6	19.5	20.4	21.1	21.7	22.3	22.7	23.1	23.4
FINANCE/INSUR/REAL EST	31.9	33.2	34.0	35.0	36.0	37.1	38.2	39.2	40.2
SERVICES	112.7	118.8	126.5	133.3	137.2	141.4	145.7	149.9	153.9
HOTELS	29.0	29.3	31.0	32.4	33.6	34.3	34.9	35.5	36.2
GOVERNMENT	93.0	93.9	95.6	96.9	98.2	99.5	100.8	102.2	103.6
FEDERAL	32.1	32.1	32.3	32.3	32.3	32.3	32.3	32.3	32.3
STATE & LOCAL	60.9	61.8	63.3	64.6	65.9	67.2	68.5	69.9	71.3
AGRICULTURE	10.5	10.1	10.5	10.0	10.0	10.1	10.1	10.1	10.1
SUGAR	4.1	4.0	3.8	3.7	3.6	3.5	3.4	3.3	3.2
PINEAPPLE	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
DIVERSIFIED	4.4	4.1	4.8	4.4	4.5	4.7	4.8	4.9	5.0
SELF-EMPLOYED	36.9	38.0	39.4	40.0	40.5	41.0	41.5	42.0	42.5
Annual % growth									
TOTAL JOBS	2.6	2.9	4.5	3.0	2.7	2.5	2.3	2.2	2.1
CONSTRUCTION	8.2	9.4	12.3	6.4	7.9	5.2	3.5	3.5	3.5
MANUFACTING	-0.3	0.7	0.0	-1.9	0.5	0.3	0.2	0.0	0.0
DURABLE	5.9	5.6	5.3	0.7	4.5	3.4	2.6	2.6	2.6
NONDURABLE	-1.4	-0.3	-1.0	-2.5	-0.4	-0.4	-0.3	-0.6	-0.7
FOOD PROCESSING	-5.3	0.7	-1.0	-5.2	-1.1	-1.2	-1.2	-1.2	-1.2
TEXTILES	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRANSPORTION	5.9	4.3	9.4	4.0	3.4	2.8	2.5	2.5	2.5
COMMUNICATIONS & UTIL.	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TRADE	3.9	1.9	4.7	3.3	3.5	3.2	2.9	2.6	2.5
RETAIL	4.0	2.4	4.7	3.3	3.6	3.3	3.1	2.8	2.7
EAT & DRINK	8.6	3.9	4.1	4.2	3.8	3.5	3.0	3.3	3.3
WHOLESALE	3.2	-0.5	4.6	3.6	2.8	2.4	2.1	1.7	1.5
FINANCE/INSUR/REAL EST	0.0	4.1	2.4	2.9	2.9	2.9	3.0	2.7	2.5
SERVICES	4.4	5.4	6.5	5.4	3.0	3.1	3.0	2.8	2.7
HOTELS	2.5	1.0	5.8	4.6	3.5	2.3	1.7	1.7	1.8
GOVERNMENT	1.3	1.0	1.8	1.3	1.3	1.3	1.4	1.4	1.4
FEDERAL	0.3	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
STATE & LOCAL	1.8	1.5	2.4	2.0	2.0	2.0	2.0	2.0	2.0
AGRICULTURE	-2.8	-3.8	4.0	-4.8	0.3	0.3	0.2	0.2	0.2
SUGAR	-4.7	-2.4	-5.0	-2.6	-2.7	-2.8	-2.9	-2.9	-3.0
PINEAPPLE	-4.8	0.0	-5.0	0.0	0.0	0.0	0.0	0.0	0.0
DIVERSIFIED	0.0	-6.8	17.1	-8.3	2.8	2.8	2.7	2.6	2.6
SELF-EMPLOYED	-0.5	3.0	3.7	1.5	1.4	1.3	1.2	1.1	1.1

Source: Department of Business and Economic Development, Hawaii Econometric Forecasting Project, February 1989.

TABLE 1-6
CONSTRUCTION FORECAST

(constant dollar value)

	1985	1986	1987	1988	1989	1990	1991	1992	1993
	Actual or Estimated				Forecast				
Millions of 1972 dollars									
TOTAL CONSTRUCTION	539.8	679.2	786.6	897.4	980.8	1,040.1	1,081.7	1,124.9	1,169.9
RESIDENTIAL	172.3	233.2	296.2	322.6	362.6	386.2	401.6	417.7	434.4
SINGLE-FAMILY	125.0	157.0	206.6	249.6	269.2	289.2	300.7	312.8	325.3
MULTI-FAMILY	17.9	46.2	47.6	31.0	48.0	48.0	49.9	51.9	54.0
ADDITIONS & ALTER.	29.4	30.0	42.0	42.0	45.4	49.0	50.9	53.0	55.1
COMMERCIAL	136.7	196.1	210.6	261.3	280.8	302.7	314.8	327.4	340.5
HOTEL	60.5	74.4	85.6	100.0	100.0	100.0	104.0	108.2	112.5
OTHER	76.2	121.7	125.0	161.3	180.8	202.7	210.8	219.2	228.0
GOVERNMENT	179.5	190.0	208.0	232.2	247.7	255.2	265.4	276.1	287.1
STATE & LOCAL	140.0	140.0	158.0	172.2	187.7	195.2	203.0	211.2	219.6
FEDERAL	39.5	50.0	50.0	60.0	60.0	60.0	62.4	64.9	67.5
NONSTRUCTURAL	51.3	59.9	71.8	81.3	89.7	96.0	99.8	103.8	108.0
Annual (%) growth rate									
TOTAL CONSTRUCTION	8.7	25.8	15.8	14.1	9.3	6.0	4.0	4.0	4.0
RESIDENTIAL	12.5	35.3	27.0	8.9	12.4	6.5	4.0	4.0	4.0
SINGLE-FAMILY	29.1	25.6	31.6	20.8	7.9	7.4	4.0	4.0	4.0
MULTI-FAMILY	-44.4	158.1	3.0	-34.9	54.8	0.0	4.0	4.0	4.0
ADDITIONS & ALTER.	21.5	2.0	40.0	0.0	8.0	8.0	4.0	4.0	4.0
COMMERCIAL	-4.7	43.5	7.4	24.1	7.5	7.8	4.0	4.0	4.0
HOTEL	1.7	23.0	15.1	16.8	0.0	0.0	4.0	4.0	4.0
OTHER	-9.3	59.7	2.7	29.0	12.1	12.1	4.0	4.0	4.0
GOVERNMENT	9.4	5.8	9.5	11.6	6.7	3.0	4.0	4.0	4.0
STATE & LOCAL	16.7	0.0	12.9	9.0	9.0	4.0	4.0	4.0	4.0
FEDERAL	-10.4	26.6	0.0	20.0	0.0	0.0	4.0	4.0	4.0
NONSTRUCTURAL	43.7	16.8	19.9	13.2	10.4	7.0	4.0	4.0	4.0

Source: Department of Business and Economic Development, Hawaii Econometric Modeling Project, February 1989.

2. UPDATED LONG-RUN ECONOMIC AND POPULATION PROJECTIONS

The Research and Economic Analysis Division has recently published revised long-range population and economic projections to the year 2010. 1/ Designated series "M-K," the new projections, replace an earlier series developed in 1983 by DBED which were designated "M-F." The designations "M" and "K" refer to two pivotal assumptions underlying the projections--a medium ("M") fertility rate assumption and a specific set of future growth rates for tourism, which was assigned the designation "K".

The new projections indicate continued growth in both the population and economy of the State through 2010, although at a slower rate than has been experienced in the past 25 years. The resident population, which includes members of the armed forces and their dependents but excludes visitors, is projected to increase 37 percent, from 1,051,500 in mid-1985 to 1,435,500 in 2010. The number of civilian jobs in the State is projected to increase 52 percent over the 25-year period, from 473,100 in 1985 to 720,600 in 2010.

The projections anticipate that population increases on the Neighbor Islands will be proportionately greater. The resident total on Oahu is projected to rise 23 percent, from 811,100 in 1985 to 999,500 in 2010. The Neighbor Island total by contrast is projected to rise 81 percent over the 1985 to 2010 period, from 240,400 to 435,900. All three Neighbor Island counties share in this expansion. Nevertheless, Oahu would still account for 70 percent of the State resident total in 2010 under the projections, down from 77 percent in 1985.

Tables and charts in this section summarize the revised projections. The balance of this section addresses questions frequently raised in connection with the long-range projections, dealing more with their origin and interpretation than with their results.

WHY WERE NEW PROJECTIONS NECESSARY?

Since the early 1970s, the Research and Economic Analysis Division (READ) of DBED has provided Statewide and county-specific population and economic projections as an aid to State, county, and private sector planning. DBED projections serve as a base scenario for the future which may be used directly for planning purposes, by policymakers as a tool for assessing policy directions, and as a standard for evaluating the many specialized forecasts developed from time to time for a host of special purposes.

As the result of more comprehensive 1980 census information made available since the M-F series, as well as recent revisions to long-run tourism projections, READ undertook a reassessment of the long-range projections and found enough room for improvement to justify development of revised projections. That reassessment and revision process resulted in the new M-K series projections.

HOW WERE THE PROJECTIONS DEVELOPED?

The M-K projections were produced through the Hawaii Population and Economic Projections and Simulation Model, a system of mathematical equations designed to give a consistent set of State and county projections. "Consistent" means that the population components and economic components, as well as the State and county level projections, have been determined in relation to one another rather than independently. This prevents such outcomes as county population totals exceeding the projections for the State as a whole, or a population projection out of all proportion to the projection for jobs and other economic variables.

At the center of the forecasting system is the State model, which forecasts

expenditures, production, employment, income, and population. The State model uses projections of U.S. productivity and wage rates and other variables produced in turn by other economic models such as the UCLA Business Forecasting Project, the U.S. Bureau of Economic Analysis, and other agencies. A County model, in turn, allocates the State forecasts of population, employment, and income among the four counties, based on each county's projected output of major exports.

WHAT IS THE DIFFERENCE BETWEEN THE M-K SERIES AND PREVIOUS M-F PROJECTIONS?

Besides adding another five years to the projection period, one of the more significant differences is the projected long-run growth of tourism demand. The previous M-F projections assumed a growth rate for visitor arrivals which slowed from an average 3 percent annually during the 1990 to 1995 period to only 1 percent annually in 2000-2005. The revised M-K projections anticipate stronger tourism demand with an annual average 3.5 percent growth in the 1990-1995 period, declining less rapidly to a sustained 2.5 percent annually beyond the year 2000. The change resulted from the first comprehensive review of projections for tourism demand since 1978. The change raises the projected visitor count in 2005 from 8.2 million under the old M-F series to 10.2 million in the new M-K projections. In 2010, the visitor demand is projected to reach almost 11.5 million.

The revision process resulted in modifications to other assumptions and internal relationships in the projections model. Defense spending is projected to grow somewhat slower than in the previous projections. Also, changes in national projections of labor productivity, labor force participation, and other relationships have resulted in differences between the M-K and previous M-F projections.

HOW OBJECTIVE ARE THE PROJECTIONS?

The M-K projections have been constructed to be as objective as possible. This means that assumptions upon which the projections are based have been constructed on the basis of their likelihood and not on their level of desirability. Likewise, the relationships within the projections model which translate assumptions into projections of the future are based, as much as possible, on objective analysis of past and current trends. The projections, therefore, do not necessarily represent preferred levels of future economic activity or population. Rather, they represent an estimation of where established trends (which embody some very powerful economic and demographic forces) are propelling economic and population growth.

HOW CERTAIN ARE THE PROJECTIONS?

By their nature, long-range projections represent an educated guess about the future based on past trends and what is known with some confidence about the future. However, it is very important to note that while the M-K series projections represent a possible and perhaps even likely future, depending on emerging conditions, they are not meant to imply either a certain or unalterable future. They are not certain because there will obviously be errors involved in projecting 20 years or more into the future, as the result of both unanticipated future events and the limitations of projection techniques. Moreover, if the projections suggest future conditions which the community determines to be undesirable, policies can be formulated to help bring about a more desirable future. Thus, the projections, regardless of their potential accuracy, are by no means unalterable if serious efforts are made to alter existing trends.

This interpretation of long-range projections will pose dilemmas for some users.

Facilities planners prefer authoritative or even goal-oriented, long-range projections as a basis for making important and expensive commitments for the future location and size of such facilities as schools, utility systems, waste disposal plants, highways, and mass transit projects. Yet, no long-range projection can supply the certainty desired in this kind of planning. In the absence of an authoritative projection of the long-range future, facilities planners must endeavor to understand the underlying basis and limitations of available long-range projections. This will help them evaluate the risk involved in projection error and to devise strategies for reducing that risk.

For other users such as policy makers and interest groups, the projections present an opportunity to examine important trends and directions in the State and counties, with some notion as to which trends and directions can be changed (or at least influenced) and which cannot.

HOW CAN HAWAII ACCOMMODATE THE PROJECTED LEVELS OF POPULATION AND ECONOMIC ACTIVITY?

It is worth reiterating that the M-F projection results are not goals, nor did goals or desirability of outcomes influence their development. Thus, the projections are bound to contain some results that many residents will consider undesirable. Undesirable results are certainly a matter for attention by policymakers and the public. Yet, however undesirable some M-F series projection results may be considered, there is no persuasive reason to doubt that they can actually happen.

As continued growth pushes population and economic activity to higher and higher levels, it is often difficult to envision how significantly higher levels can be accommodated. Quite likely, a projection of 6 million visitors in 1988 would have been considered unattainable 30 years ago. Clearly, there are areas in the State which are very crowded and further growth seems at least undesirable, if not physically limited. Still, the past shows that where the demand is strong, supply will tend to develop to satisfy that demand.

The levels of population and economic activity projected through 2010 appear feasible from several perspectives. First, the most recent information of resort capacity by county which was done for development of the Hawaii State Plan in 1978 either exceeds or is very close to the level of visitor units projected for the counties in the M-K series through 2010. While the Neighbor Islands are projected to undergo considerable growth in the 1985 to 2010 period, population densities will still be far less than on Oahu even in 1985. Much of the problem of accommodating growth on the Neighbor Islands has to do with infrastructure (roads, water development, waste disposal, etc.) rather than space for development per se, and infrastructure is primarily constrained by financial or public policy rather than physical factors. On Oahu, physical constraints in Waikiki limit expansion of the visitor industry in that area. However, development potential at West Beach and some North Shore areas present technically viable means for continued long-term growth for tourism on Oahu if public policy deems such continued growth desirable.

As an overall check on the viability of the projections, a preliminary report on the M-K series was transmitted for comment to all State agencies and planning departments of each county. None of the agencies or planning offices questioned the feasibility of the projections for either the State or counties.

Thus, while the desirability of the population and economic activity levels implied by the M-K projections are a question for policy discussion, the levels, through the year 2010, appear feasible.

1/ Department of Business and Economic Development, *Population and Economic Projections for the State of Hawaii to 2010* (Series M-K), November 1988.

Table 2-1
POPULATION ESTIMATES AND PROJECTIONS, RESIDENT AND DE FACTO, BY MILITARY AND RESIDENCE STATUS: 1970 TO 2010

[Series M-K]

Year	Resident population 1/		De facto population 2/	
	Total	Excluding armed forces and dependents	Total	Visitors present
Population (in thousands):				
1970	771.6	660.1	798.6	36.9
1975	886.2	763.7	943.5	66.3
1980	968.9	846.9	1,055.8	96.5
1985	1,051.5	930.5	1,149.6	116.7
1990	1,137.2	1,016.8	1,269.1	152.0
1995	1,225.2	1,104.8	1,382.3	178.6
2000	1,285.1	1,164.7	1,468.6	206.0
2005	1,350.8	1,230.4	1,560.3	233.1
2010	1,435.5	1,315.1	1,674.2	263.7
Average annual percent change:				
1970-1975	2.8	3.0	3.4	12.4
1975-1980	1.8	2.1	2.3	7.8
1980-1985	1.6	1.9	1.7	3.9
1985-1990	1.6	1.8	2.0	5.4
1990-1995	1.5	1.7	1.7	3.3
1995-2000	1.0	1.1	1.2	2.9
2000-2005	1.0	1.1	1.2	2.5
2005-2010	1.2	1.3	1.4	2.5

1/ As of July 1. The resident population is defined as the number of persons whose usual place of residence is in an area, regardless of physical location on the census or estimate date. It includes armed forces stationed or homeported in an area but excludes persons of local origin attending school or in military service outside the area.

2/ The de facto populaton is defined as the number of persons physically present in an area, regardless of usual place of residence. It includes visitors present but excludes residents temporarily absent. The resident population is based on July 1 estimates; visitors presents and residents absent are based on calendar year averages.

Table 2-2
POPULATION ESTIMATES AND PROJECTIONS, RESIDENT AND DE FACTO BY COUNTIES: 1970 TO 2010

[In thousands]

Type of population and year	State total	City & County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
Resident population						
1970	771.6	631.6	140.1	63.8	29.8	46.5
1975	886.2	718.6	167.5	77.4	33.4	56.8
1980	968.9	764.8	204.1	93.0	39.4	71.6
1985	1,051.5	811.1	240.4	109.5	45.4	85.5
1990	1,137.2	861.6	275.6	124.6	54.1	96.8
1995	1,225.2	910.4	314.9	142.5	61.1	111.2
2000	1,285.1	932.8	352.4	160.4	68.2	123.9
2005	1,350.8	961.1	389.7	180.8	75.5	133.4
2010	1,435.5	999.5	435.9	206.1	84.6	145.2
De facto population:						
1970	798.6	650.2	148.4	66.6	32.3	49.4
1975	943.5	757.1	186.4	83.3	38.1	65.1
1980	1,055.8	823.6	232.2	99.5	46.4	86.4
1985	1,149.6	861.6	288.1	116.1	56.2	115.7
1990	1,269.1	928.0	341.2	134.4	70.1	136.7
1995	1,382.3	983.1	399.2	158.6	81.7	159.0
2000	1,468.6	1,012.5	456.1	183.0	94.0	179.1
2005	1,560.3	1,048.5	511.9	211.0	104.8	196.0
2010	1,674.2	1,094.7	579.5	243.0	120.3	216.2

Table 2-3
STATE POPULATION AND ECONOMIC PROJECTIONS: 1985 TO 2010

[In thousands]

Subject	1985	1990	1995	2000	2005	2010
Resident population	1,051.5	1,137.2	1,225.2	1,285.1	1,350.8	1,435.5
De facto populaton	1,149.6	1,269.1	1,382.3	1,468.6	1,560.3	1,674.2
Total labor force	537.4	602.2	657.5	704.9	741.9	780.2
Civilian labor force	479.0	543.8	599.1	646.5	683.4	721.7
Civilian persons employed	452.0	516.7	568.6	614.0	649.5	686.3
Total jobs	541.5	611.0	665.5	713.1	750.4	789.1
Military jobs	68.4	68.4	68.4	68.4	68.4	68.4
Civilian jobs	473.1	542.6	597.0	644.7	682.0	720.6
Self-employed	36.9	42.3	46.6	50.3	53.2	56.2
Wage and salary jobs	436.2	500.2	550.5	594.4	628.8	664.4
Sugarcane - field	4.1	3.6	3.2	2.8	2.5	2.2
Pineapple - field	2.0	1.9	1.9	1.8	1.7	1.7
Other agriculture	4.4	5.4	6.3	7.1	7.8	8.6
Sugarcane processing	3.5	3.1	2.7	2.4	2.1	1.8
Pineapple canning	1.9	1.7	1.6	1.4	1.3	1.2
Other food processing	4.7	5.2	5.6	5.9	6.0	6.1
Misc manufacturing	11.9	12.7	13.3	13.9	14.5	15.0
Construction	17.2	21.2	23.3	25.0	26.1	27.1
Transp,warehousing	23.4	26.2	28.3	29.8	30.9	31.9
Communication	7.4	8.5	9.1	9.7	10.0	10.3
Utilities	2.5	2.7	2.8	2.9	3.0	3.0
Wholesale trade	19.6	22.5	24.5	26.3	27.4	28.3
Retail trade	56.0	65.9	73.3	80.0	85.6	91.6
Eating & drnk places	40.1	48.1	52.7	57.3	61.4	65.9
Banking & finance	31.9	35.4	39.2	41.6	42.9	44.5
Hotels	29.0	34.5	38.1	41.3	43.7	46.3
Health,prof services	34.4	42.4	49.7	55.8	61.0	66.6
Other services	49.2	61.1	71.5	80.7	88.4	96.7
State-local gov	60.9	65.8	70.7	75.3	78.8	81.4
Federal gov	32.4	32.5	32.9	33.3	33.7	34.1
Personal income (millions of 1982 dollars)	13,045	15,509	17,994	20,094	21,920	24,122
Per capita income (thousands of 1982 dollars)	12.4	13.6	14.7	15.6	16.2	16.8
Disposable personal income (millions of 1982 dollars)	11,297	13,311	15,441	17,241	18,806	20,694
Gross State Product (millions of 1982 dollars)	15,132	18,345	21,670	24,720	27,469	30,418

Table 2-4
POPULATION AND ECONOMIC PROJECTIONS FOR THE CITY & COUNTY OF HONOLULU: 1985 TO 2010

[In thousands]

County and variable	1985	1990	1995	2000	2005	2010
Resident population	811.1	861.6	910.4	932.8	961.1	999.5
De facto population	861.6	928.0	983.1	1,012.5	1,048.5	1,094.7
Civilian jobs	369.7	417.1	450.2	476.3	494.1	511.2
Wage and salary jobs	345.1	388.7	418.9	442.6	458.4	473.4
Agriculture	2.7	2.7	2.8	2.8	2.9	2.9
Manufacturing	15.9	16.6	17.0	17.4	17.5	17.8
Construction	14.1	17.2	18.6	19.5	20.0	20.3
Transp., com., utilities	27.1	29.6	31.3	32.3	32.7	33.1
Trade(excl. e&d)	60.2	70.2	75.9	80.5	83.6	86.7
Eating & drinking	31.7	36.6	38.5	40.1	41.2	42.2
Banking, finance	27.0	29.5	32.0	33.4	34.1	34.8
Services	87.3	104.8	118.6	129.6	138.0	146.7
Hotels	16.1	17.9	18.7	19.0	19.0	19.0
Other services	71.2	86.9	99.9	110.6	119.0	127.7
Government	79.0	81.5	84.4	86.9	88.4	89.0
State/local	47.9	50.1	52.7	54.8	55.9	56.1
Federal	31.2	31.3	31.8	32.2	32.5	32.9
Self-employed	24.8	28.4	31.2	33.7	35.7	37.7
Personal income (millions of 1982 dollars)	10,566	12,356	14,072	15,408	16,495	17,786
Per capita income (thousands of 1982 dollars)	13.0	14.3	15.5	16.5	17.2	17.8

Table 2-5
POPULATION AND ECONOMIC PROJECTIONS FOR HAWAII COUNTY: 1985 TO 2010

[In thousands]

County and variable	1985	1990	1995	2000	2005	2010
Resident population	109.5	124.6	142.5	160.4	180.8	206.1
De facto population	116.1	134.4	158.6	183.0	211.0	243.0
Civilian jobs	42.4	50.8	59.3	68.2	78.3	89.8
Wage and salary jobs	35.7	43.1	50.8	59.0	68.6	79.5
Agriculture	3.5	3.7	3.8	3.9	4.0	4.1
Manufacturing	2.8	2.7	2.8	2.8	2.9	2.9
Construction	1.3	1.6	1.9	2.2	2.5	2.9
Transp., com., utilities	2.1	2.6	3.0	3.4	3.9	4.5
Trade(excl. e&d)	6.4	7.3	8.5	9.9	11.5	13.3
Eating & drinking	2.7	3.8	5.0	6.3	8.0	9.9
Banking, finance	1.5	1.7	1.9	2.2	2.6	3.0
Services	8.8	11.6	14.6	17.7	21.2	25.3
Hotels	4.0	5.2	6.3	7.4	8.7	10.2
Other services	4.9	6.5	8.3	10.2	12.4	15.1
Government	6.9	8.1	9.3	10.6	12.0	13.6
State/local	6.3	7.5	8.7	9.9	11.4	13.0
Federal	0.7	0.6	0.7	0.7	0.7	0.7
Self-employed	6.7	7.7	8.5	9.2	9.7	10.2
Personal income (millions of 1982 dollars)	1,064	1,328	1,643	1,965	2,342	2,812
Per capita income (thousands of 1982 dollars)	9.7	10.7	11.5	12.3	13.0	13.6

Table 2-6
POPULATION AND ECONOMIC PROJECTIONS FOR KAUAI COUNTY: 1985 TO 2010

[In thousands]

County and variable	1985	1990	1995	2000	2005	2010
Resident population	45.4	54.1	61.1	68.2	75.5	84.6
De facto population	56.2	70.1	81.7	94.0	104.8	120.3
Civilian jobs	19.9	25.3	29.8	34.2	38.1	42.5
Wage and salary jobs	18.0	23.1	27.4	31.6	35.4	39.6
Agriculture	1.3	1.5	1.7	1.8	2.0	2.2
Manufacturing	1.3	1.3	1.3	1.3	1.3	1.3
Construction	0.6	0.8	0.9	1.1	1.2	1.4
Transp., com., utilities	1.9	2.4	2.8	3.1	3.4	3.6
Trade(excl. e&d)	2.8	3.6	4.5	5.4	6.2	7.1
Eating & drinking	1.9	2.4	2.9	3.4	4.0	4.6
Banking, finance	0.9	1.1	1.3	1.5	1.6	1.8
Services	4.7	6.7	8.0	9.4	10.7	12.2
Hotels	2.5	3.4	4.0	4.5	5.0	5.6
Other services	2.3	3.2	4.0	4.9	5.7	6.6
Government	2.8	3.5	4.0	4.5	5.0	5.4
State/local	2.5	3.3	3.8	4.3	4.8	5.2
Federal	0.3	0.2	0.2	0.2	0.2	0.2
Self-employed	1.9	2.2	2.4	2.6	2.7	2.9
Personal income (millions of 1982 dollars)	460	630	790	945	1,094	1,277
Per capita income (thousands of 1982 dollars)	10.1	11.6	12.9	13.9	14.5	15.1

Table 2-7
POPULATION AND ECONOMIC PROJECTIONS FOR MAUI COUNTY: 1985 TO 2010

[In thousands]

County and variable	1985	1990	1995	2000	2005	2010
Resident population	85.5	96.8	111.2	123.9	133.4	145.2
De facto population	115.7	136.7	159.0	179.1	196.0	216.2
Civilian jobs	41.1	49.4	57.8	66.0	71.4	77.2
Wage and salary jobs	37.6	45.4	53.3	61.2	66.3	71.8
Agriculture	3.0	3.1	3.1	3.1	3.2	3.2
Manufacturing	2.1	2.0	2.1	2.1	2.1	2.1
Construction	1.3	1.6	1.9	2.2	2.4	2.6
Transp., com., utilities	2.3	2.7	3.2	3.6	3.8	4.1
Trade(excl. e&d)	6.0	7.2	8.8	10.4	11.6	12.8
Eating & drinking	4.0	5.3	6.3	7.5	8.3	9.2
Banking, finance	2.6	3.2	3.9	4.4	4.7	4.9
Services	11.8	14.9	18.0	21.1	23.2	25.4
Hotels	6.5	7.9	9.1	10.3	10.9	11.6
Other services	5.3	7.0	8.9	10.8	12.2	13.9
Government		4.6	5.2	5.9	6.6	7.1 7.5
State/local	4.3	4.9	5.6	6.3	6.8	7.2
Federal		0.4	0.3	0.3	0.3	0.3 0.3
Self-employed	3.6	4.1	4.5	4.8	5.1	5.4
Personal income (millions of 1982 dollars)	953	1,196	1,489	1,776	1,989	2,248
Per capita income (thousands of 1982 dollars)	11.1	12.4	13.4	14.3	14.9	15.5

Table 2-8
VISITOR INDUSTRY PROJECTIONS: 1985 TO 2010

[In thousands unless otherwise noted]

Subject	1985	1990	1995	2000	2005	2010
Visitor arrivials	4,884	6,521	7,746	8,979	10,159	11,494
Non-Japanese	4,029	5,087	5,887	6,734	7,619	8,620
Japanese	855	1,435	1,859	2,245	2,540	2,874
Visitor and crew expenditures (millions of 1982 dollars)	4,210	6,070	7,324	8,556	9,680	10,952
Non-Japanese	3,264	3,918	4,535	5,189	5,871	6,642
Japanese	946	2,152	2,788	3,367	3,810	4,310
Average visitor census 1/	116.7	152.0	178.7	206.0	233.1	263.7
Oahu 2/	65.3	82.1	89.3	96.8	104.9	113.4
Hawaii County 3/	8.0	11.4	17.9	24.7	32.6	39.6
Kauai County 3/	11.5	16.7	21.4	26.8	30.3	36.9
Maui County 3/	31.9	41.8	50.0	57.7	65.3	73.8
Occupied visitor units 4/	50.8	60.8	71.5	82.4	93.2	105.5
Oahu	31.6	35.3	38.6	42.0	44.8	47.5
Hawaii County	4.3	6.1	8.6	11.5	14.9	19.0
Kauai County	3.7	6.1	7.1	9.1	10.3	12.7
Maui County	11.1	13.4	16.4	19.8	23.3	26.4
Total visitor units 4/	65.9	76.5	88.7	102.7	116.8	132.8
Oahu	38.6	41.5	45.4	49.4	52.7	55.8
Hawaii County	7.5	10.1	13.2	16.4	21.3	27.1
Kauai County	5.7	8.1	9.5	12.1	13.7	16.9
Maui County	14.2	16.7	20.5	24.7	29.2	33.0

1/ Total of westbound and eastbound based on HVB compilation method. This represents the average number of visitors present in the State daily during the year.

2/ As compiled by HVB, this includes the State total for eastbound visitors as well as the westbound census for Oahu only.

3/ Westbound census only as compiled by HVB.

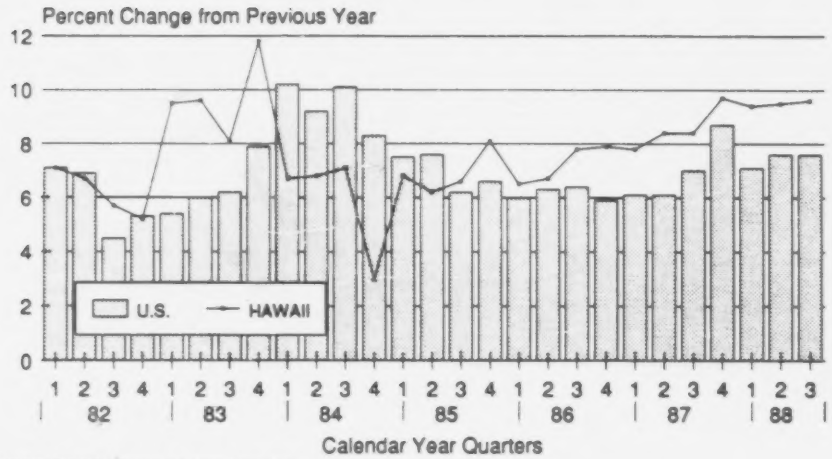
4/ Includes hotels and condominiums used for visitors.

3. INCOME AND PRICES

Total personal income for the first three quarters rose considerably faster than the U.S., averaging nearly 10 percent compared with 7 percent for the nation. The continued strength of tourism and fixed investment extended the gains of major industries such as retail trade, services, and finance to higher levels of growth compared with the previous year.

Figure 3-1

GROWTH IN PERSONAL INCOME: U.S. AND HAWAII



SOURCE: DBED, Based on data from the Dept of Commerce, Bureau of Economic Analysis

According to the Department of Commerce's Bureau of Economic Analysis, the current pattern of the economic expansion has caused regional differences in per capita personal income to widen in 1987. This is in contrast to previous expansion periods when regional differences narrowed.

Per capita income is computed by dividing total personal income by the resident population. A region's per capita personal income can change relative to the U.S. average because its total personal income, its population, or both, grow at a faster or slower rate than the U.S. average.

The New England and Mideast regions experience rapid growth in personal income due to expansion in the service and construction industry payrolls. However, high housing costs discouraged migration into the area, resulting in above average gains in per capita income. In the Southwest and Rocky Mountain regions, weakness in petroleum related activities combined with population growth equal to or above the nation resulted in below average gains in per capita income.

Personal income growth in Hawaii slightly exceeded the national average, however, higher population increases resulted in a per capita personal income levels equal to or only slightly above national levels during the 1982 to 1987 period (see table 3-3).

Table 3-1
TOTAL PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1988

[In millions of dollars and percent]

Year	Total personal income 1/		Percent change from same period in previous year	
	United States	Hawaii	United States	Hawaii
1980	2,254,076	10,279	11.1	13.8
1981	2,514,231	11,051	11.5	7.5
1982	2,663,432	11,732	5.9	6.2
1983	2,834,385	12,875	6.4	9.7
1984	3,101,163	13,628	9.4	5.8
1985	3,317,239	14,576	7.0	7.0
1986	3,521,393	15,634	6.2	7.3
1987	3,768,125	16,972	7.0	8.6
1985:				
1 Q	3,254,982	14,283	7.5	6.8
2 Q	3,299,561	14,468	7.6	6.2
3 Q	3,323,618	14,632	6.2	6.6
4 Q	3,390,795	14,920	6.6	8.1
1986:				
1 Q	3,451,458	15,212	6.0	6.5
2 Q	3,507,381	15,439	6.3	6.7
3 Q	3,537,172	15,780	6.4	7.8
4 Q	3,589,561	16,103	5.9	7.9
1987:				
1 Q	3,663,685	16,393	6.1	7.8
2 Q	3,721,716	16,734	6.1	8.4
3 Q	3,785,589	17,106	7.0	8.4
4 Q	3,901,510	17,658	8.7	9.7
1988:				
1 Q	3,923,680	17,929	7.1	9.4
2 Q	4,003,546	18,326	7.6	9.5
3 Q	4,074,838	18,756	7.6	9.6

1/ Quarterly income seasonally adjusted at annual rates.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, diskettes dated August and October 1988 and January 1989.

Table 3-2
PERSONAL INCOME BY MAJOR SOURCES: 1986 TO 1988

[In millions of dollars and percent]

Item	1986	1987	I-III Q 1988	Growth rate from previous period	
				1986-87	I-III Q 1987-88
By type:					
Wage and salary disbursements	9,781	10,669	11,637	9.1	10.7
Other labor income	842	941	1,013	11.8	9.0
Proprietors income	1,214	1,309	1,395	7.9	7.3
Farm	146	159	182	8.5	9.6
Nonfarm	1,067	1,150	1,213	7.8	6.9
By industry:					
Farm	298	321	351	7.5	7.7
Nonfarm	11,538	12,599	17,986	9.2	9.5
Private	8,013	8,933	9,813	11.5	12.0
Agriculture, forestry, fish	55	65	82	16.9	30.3
Construction	773	904	954	17.0	6.8
Manufacturing	545	567	595	4.0	6.0
Transp., comm., utilities	983	1,105	1,225	12.4	12.7
Wholesale trade	466	506	552	8.6	10.3
Retail trade	1,348	1,518	1,699	12.6	13.3
Finance, insur., real est.	844	927	1,030	9.9	13.1
Services	3,001	3,334	3,667	11.1	13.2
Government and govt. enterpr	3,525	3,666	3,881	4.0	6.3
Federal, civilian	950	990	1,042	4.2	6.0
Federal military	1,299	1,325	1,355	2.0	2.0
State and local	1,277	1,351	1,484	5.8	10.7
Derivation of personal income					
Total earnings	11,836	12,919	14,045	9.1	10.2
Less: Personal conbributions for social insurance	716	778	897	8.6	16.5
Net earnings	11,120	12,141	13,148	9.2	9.8
Plus: Dividends, interest, and rent	2,319	2,506	2,707	8.1	9.8
Plus: Transfer payments	2,195	2,326	2,481	5.9	7.4
Personal income	15,634	16,972	18,337	8.6	9.5

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Electronic Data Distribution System release August 1988 and January 1989.

Table 3-3
PER CAPITA PERSONAL INCOME AS A PERCENT OF THE U.S. AVERAGE, 1982-87, BEA REGIONS AND HAWAII

	1982	1983	1984	1985	1986	1987
New England	109	112	114	115	117	120
Mideast	110	111	111	112	113	114
Far West	112	112	111	111	111	111
Hawaii	**102**	**104**	**100**	**100**	**101**	**101**
Great Lakes	98	98	99	99	99	98
Plains	97	95	96	95	96	96
Southwest	99	96	95	94	91	88
Rocky Mountain	96	95	93	91	89	88
Southeast	86	87	87	87	87	87

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Figure 3-2
PER CAPITA PERSONAL INCOME, HAWAII AND U.S. REGIONS: 1982 to 1987
(Percent of U.S. Average)

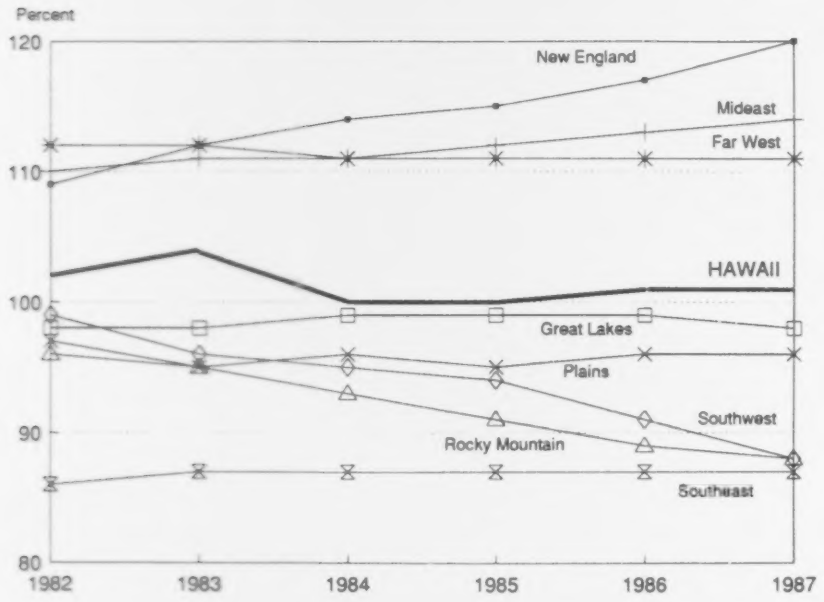


Table 3-4
CONSUMER PRICE INDEX, ALL URBAN CONSUMERS (CPI-U) FOR SELECTED ITEMS FOR HONOLULU: 1980 TO 1988

[1982-84 = 100]

Period 1/	All items	Food & beverage	Housing 2/	Apparel and upkeep	Transportation	Medical care	Entertainment	Other
Honolulu:								
1980	83.0	84.2	83.2	89.8	86.6	73.1	78.2	73.3
1981	91.7	92.6	92.3	94.5	95.7	81.8	87.2	81.5
1982	97.2	96.9	98.0	98.4	99.0	91.6	95.7	92.0
1983	99.3	99.5	98.9	101.4	98.2	101.1	100.0	101.4
1984	103.5	103.6	103.1	100.2	102.9	107.3	104.3	106.6
1985	106.8	107.8	106.0	99.6	104.9	113.2	111.9	112.5
1986.....	109.4	110.0	108.4	99.8	105.2	122.3	113.2	119.6
1987	114.9	114.1	115.0	102.5	109.7	127.9	118.6	129.7
1986:								
1st half...	108.9	108.8	108.0	99.4	106.0	120.2	115.5	116.6
2nd half .	109.9	111.2	108.9	100.2	104.4	124.5	110.9	122.5
1987:								
1st half...	113.3	113.3	113.4	101.0	107.3	126.5	116.3	127.0
2nd half .	116.5	115.0	116.5	104.1	112.1	129.2	120.9	132.4
1988:								
1st half...	120.1	118.9	121.1	105.7	114.2	130.3	123.1	135.0
% increase (Honolulu):								
1980-81	10.5	10.0	10.9	5.2	10.5	11.9	11.5	11.2
1981-82	6.0	4.6	6.2	4.1	3.4	12.0	9.7	12.9
1982-83	2.2	2.7	0.9	3.0	-0.8	10.4	4.5	10.2
1983-84	4.2	4.1	4.2	-1.2	4.8	6.1	4.3	5.1
1984-85	3.2	4.1	2.8	-0.6	1.9	5.5	7.3	5.5
1985-86	2.4	2.0	2.3	0.2	0.3	8.0	1.2	6.3
1986-87	5.0	3.7	6.1	2.7	4.3	4.6	4.8	8.4
1st half ..	4.0	4.1	5.0	1.6	1.2	5.2	0.7	8.9
2nd half .	6.0	3.4	7.0	3.9	7.4	3.8	9.0	8.1
1987-88:								
1st half...	6.0	4.9	6.8	4.7	6.4	3.0	5.8	6.3

1/ Beginning with 1987, the Honolulu CPI-U is available semi-annually only.

2/ Change in calculation in 1983--housing costs measured in rental equivalence (what owners would have to pay if they rented their homes).

Source: U.S. Department of Labor, Bureau of Labor Statistics.

4. EMPLOYMENT

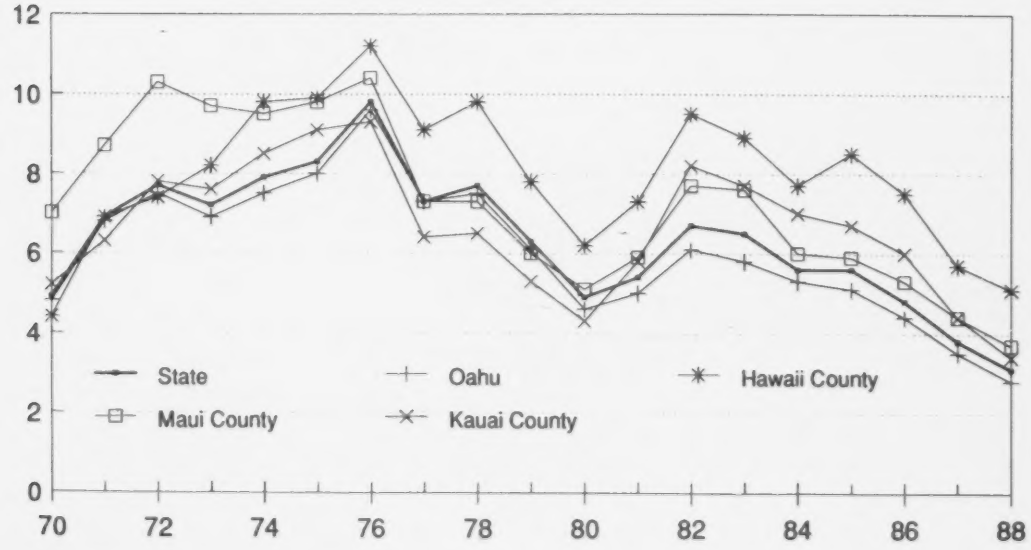
The State unemployment rate for 1988 averaged 3.1 percent, the lowest annual rate since the current method of measurement was started in 1970. The City and County of Honolulu had the lowest county unemployment rate at 2.8 percent followed by Maui County (3.5 percent), Kauai County (3.7 percent) and Hawaii County (5.1 percent).

Hawaii has recently ranked fourth lowest in the rate of unemployment by state. The national unemployment rate for 1988 was 5.5 percent, also a record low.

Over 506,000 civilians were estimated to be employed in the State in 1988, an increase of over 11,000 since 1987. Total civilian jobs, however, increased by less than 11,000 or 2.1 percent from the 1987 annual average. The preliminary job estimates for 1988, based on a limited survey, will be revised later based on more complete reporting by employers. In the past, percent growth rates of total jobs have increased by at least a percentage point from the preliminary estimate. Therefore, the growth in total civilian jobs from 1987 to 1988 is expected to be in the 3 to 4 percent level, slightly lower than the 4.5 percent increase experienced in the previous period.

Figure 4-1

UNEMPLOYMENT RATES, STATE AND COUNTIES: 1970 to 1988



Source:DBED, Based on data from the State Dept of Labor and Industrial Relations

Table 4-1
CIVILIAN LABOR FORCE AND EMPLOYMENT, BY COUNTY: 1980 TO 1988

[Number of persons]

Subject and year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Civilian labor force:					
1980	439,000	338,350	43,550	19,550	37,550
1981	451,000	345,700	45,450	20,100	39,800
1982	461,000	350,100	47,200	20,850	42,900
1983	472,000	357,100	48,350	21,650	44,850
1984	472,000	357,100	48,650	21,300	44,950
1985	479,000	359,600	50,400	22,050	46,950
1986	492,000	368,700	51,350	23,400	48,600
1987	514,000	384,100	54,150	25,000	51,750
1988	522,500	389,350	55,600	26,550	50,950
1987: 1 Q	500,550	373,850	52,100	23,750	50,850
2 Q	516,300	385,200	54,550	24,800	51,850
3 Q	520,100	386,850	55,650	25,200	52,350
4 Q	523,050	390,600	54,350	26,250	51,900
1988: 1 Q	525,950	392,450	54,950	26,550	52,000
2 Q	525,250	392,250	55,050	26,650	51,300
3 Q	516,000	384,200	54,950	26,400	50,450
4 Q	522,750	388,450	57,500	26,700	50,050
Civilian employment:					
1980	418,000	322,800	40,850	18,700	35,650
1981	427,000	328,500	42,150	18,900	37,450
1982	430,000	328,600	42,700	19,150	39,600
1983	442,000	336,550	44,050	20,000	41,450
1984	445,000	338,050	44,900	19,800	42,250
1985	452,000	341,150	46,150	20,550	44,150
1986	468,000	352,500	47,500	22,000	46,050
1987	495,000	370,600	51,050	23,900	49,450
1988	506,150	378,550	52,800	25,600	49,200
1987: 1 Q	480,550	360,050	49,150	22,700	48,700
2 Q	495,150	371,150	50,950	23,650	49,450
3 Q	500,400	373,450	52,500	24,250	50,200
4 Q	503,900	377,700	51,700	25,000	49,550
1988: 1 Q	507,750	380,200	52,150	25,500	49,900
2 Q	509,550	381,950	52,300	25,650	49,700
3 Q	500,550	374,150	52,150	25,450	48,850
4 Q	506,600	377,950	54,550	25,800	48,300

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-2
CIVILIAN UNEMPLOYED AND UNEMPLOYMENT RATE, BY COUNTY: 1980 TO 1988

[Number of persons]

Subject and year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Civilian unemployed (persons):					
1980	21,000	15,550	2,700	850	1,900
1981	24,000	17,150	3,300	1,150	2,350
1982	31,000	21,500	4,500	1,700	3,300
1983	30,000	20,600	4,300	1,650	3,400
1984	27,000	19,100	3,750	1,500	2,700
1985	27,000	18,450	4,250	1,500	2,800
1986	24,000	16,200	3,850	1,400	2,550
1987	20,000	13,550	3,100	1,100	2,250
1988	16,350	10,750	2,850	1,000	1,750
1987: 1 Q	20,000	13,800	2,950	1,050	2,150
2 Q	21,200	14,050	3,600	1,150	2,400
3 Q	19,700	13,400	3,150	950	2,200
4 Q	19,150	12,900	2,650	1,250	2,350
1988: 1 Q	18,200	12,250	2,850	1,050	2,100
2 Q	15,650	10,300	2,750	1,000	1,600
3 Q	15,400	10,050	2,850	950	1,600
4 Q	16,150	10,500	2,950	950	1,750
Unemployment rate (percent):					
1980	4.9	4.6	6.2	4.3	5.1
1981	5.4	5.0	7.3	5.8	5.9
1982	6.7	6.1	9.5	8.1	7.7
1983	6.5	5.8	8.9	7.7	7.6
1984	5.6	5.3	7.7	7.0	6.0
1985	5.6	5.1	8.5	6.7	5.9
1986	4.8	4.4	7.5	6.0	5.3
1987	3.8	3.5	5.7	4.4	4.4
1988	3.1	2.8	5.1	3.7	3.4
1987: 1 Q	4.0	3.7	5.7	4.4	4.2
2 Q	4.1	3.6	6.6	4.6	4.6
3 Q	3.8	3.5	5.7	3.8	4.2
4 Q	3.7	3.3	4.9	4.8	4.5
1988: 1 Q	3.5	3.1	5.2	4.0	4.0
2 Q	3.0	2.6	5.0	3.7	3.1
3 Q	3.0	2.6	5.2	3.6	3.2
4 Q	3.1	2.7	5.1	3.6	3.5

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-3
TOTAL JOBS: 1980 TO 1988

Year	Total jobs 1/	Nonagriculture			Agriculture			Labor disputes
		Total	Wage & salary	Self-employed	Total	Wage & salary	Self-employed	
1980	448,150	432,400	404,100	28,300	15,400	10,800	4,600	500
1981	449,900	433,950	404,800	29,150	15,850	11,500	4,350	50
1982	446,050	430,700	399,400	31,300	15,250	11,300	4,000	100
1983	453,750	438,500	406,200	32,300	15,100	11,200	3,900	150
1984	461,000	446,100	412,650	33,450	14,450	10,800	3,650	450
1985	473,150	459,150	425,750	33,400	13,900	10,400	3,500	100
1986	486,850	473,300	438,550	34,750	13,350	10,150	3,200	200
1987	508,900	494,600	458,950	35,650	14,250	10,550	3,700	50
1988 (p)	519,650	505,900	468,800	37,100	13,650	10,100	3,550	100
1987(p):								
1 Q	496,050	482,700	451,900	30,800	13,350	10,000	3,350	-
2 Q	508,450	494,250	458,500	35,750	14,150	10,500	3,650	50
3 Q	509,900	494,450	458,200	36,250	15,400	11,300	4,100	50
4 Q	517,700	503,700	467,250	36,450	13,950	10,350	3,600	50
1988 (p):								
1 Q	514,300	500,800	465,700	35,100	13,450	10,000	3,450	50
2 Q	520,750	507,100	468,250	38,850	13,600	10,000	3,600	50
3 Q	518,800	504,800	466,600	38,250	13,900	10,450	3,450	100
4 Q	524,550	510,800	474,650	36,150	13,750	9,950	3,750	150
	Percent change from the same period in previous year							
1980	3.2	3.4	2.6	16.2	1.1	0.5	2.2	-28.6
1981	0.3	0.4	0.2	3.0	2.9	8.4	-5.4	-90.0
1982	-0.9	-0.7	-1.3	7.4	-3.8	-2.2	-9.2	100.0
1983	1.7	1.8	1.7	3.2	-1.3	-0.9	-1.3	50.0
1984	1.6	1.7	1.6	3.6	-4.0	-3.6	-6.4	200.0
1985	2.6	2.9	3.2	-0.2	-3.8	-3.5	-4.4	-77.8
1986	2.9	3.1	3.0	4.0	-4.0	-2.4	-8.6	85.7
1987	4.5	4.5	4.6	2.6	6.7	3.9	15.6	-75.0
1988 (p)	2.1	2.3	2.1	4.0	-4.0	-4.1	-3.2	69.2
1987:								
1 Q	3.6	3.6	4.4	-6.8	4.2	1.5	11.7	0.0
2 Q	5.1	5.0	5.2	1.9	10.7	5.5	28.1	0.0
3 Q	4.3	4.2	4.6	-0.1	7.7	4.1	18.8	0.0
4 Q	4.5	4.5	4.4	6.1	3.3	3.5	2.9	-91.7
1988 (p):								
1 Q	3.7	3.7	3.1	14.0	0.7	-0.2	2.5	0.0
2 Q	2.4	2.6	2.1	8.7	-3.9	-4.5	-1.8	0.0
3 Q	1.7	2.1	1.8	-3.4	-9.7	-7.5	-15.4	75.0
4 Q	1.3	1.4	1.6	-0.8	-1.4	-3.9	4.1	200.0

p Preliminary.

1/ Total of wage and salary jobs and self-employed in agricultural and nonagricultural industries plus those jobs involved in labor disputes.

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-4
NUMBER OF JOBS, BY INDUSTRY: 1986 TO 1988

Series	1986	1987	1988 (p)	Percent change from previous year		
				1986	1987	1988
Total jobs 1/	486,850	508,900	519,650	2.9	4.5	2.1
Non-agricultural wage and salary jobs	438,550	458,950	468,800	3.0	4.6	2.1
Construction	18,650	20,950	20,800	8.7	12.3	-0.8
Manufacturing	22,050	22,100	22,000	0.7	0.2	-0.7
Durable goods	3,750	3,950	4,050	1.4	5.3	1.7
Nondurable goods	18,250	18,150	17,950	0.0	-0.5	-1.2
Food processing	10,100	10,100	10,050	0.0	0.0	-0.7
Sugar processing	3,300	3,100	2,950	-4.3	-6.1	-5.0
Pineapple processing	2,000	2,050	2,050	5.3	2.5	0.2
Other food processing	4,850	4,950	5,000	3.2	2.1	1.8
Transp. commun., utilities	34,200	36,650	36,800	3.0	7.2	0.4
Trade	117,950	123,350	125,600	2.0	4.6	1.8
Wholesale	19,550	20,400	20,600	0.0	4.3	1.0
Retail	98,400	102,950	105,000	2.4	4.6	2.0
Finance, insur., real estate	33,150	33,950	34,550	3.9	2.4	1.8
Services	118,750	126,350	130,800	5.4	6.4	3.5
Hotels	29,250	31,000	33,250	0.9	6.0	7.2
Government	93,850	95,600	98,300	0.6	1.9	2.8
Federal	32,100	32,350	32,600	-0.9	0.8	0.9
State	48,600	49,900	51,850	2.5	2.7	3.9
Local	13,150	13,400	13,850	-2.6	1.9	3.3
Agriculture (wage & salary)	10,150	10,550	10,100	-2.4	3.9	-4.1
Sugar	4,000	3,800	3,700	-2.4	-5.0	-3.0
Pineapple	2,050	1,900	1,750	5.1	-7.3	-8.8
Diversified agriculture	4,100	4,800	4,700	-5.7	17.1	-2.8
Nonagric. self-employed 2/	34,750	35,650	37,100	4.0	2.6	4.0
Agricultural self-employed 2/	3,200	3,700	3,550	-8.6	15.6	-3.2
Labor disputes	200	50	100	85.7	-75.0	69.2

p Preliminary.

1/ Total of nonagricultural and agricultural wage and salary, self-employed, and jobs involved in labor disputes.

2/ Self-employed includes unpaid family workers and domestics.

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-5
NON-AGRICULTURAL WAGE AND SALARY JOBS, BY COUNTY: 1980 TO 1988

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
1980	404,100	333,050	28,450	15,150	27,500
1981	404,800	332,300	28,850	15,200	28,450
1982	399,400	325,700	28,700	15,150	29,900
1983	406,200	330,100	29,350	15,700	31,050
1984	412,650	334,400	30,400	15,700	32,150
1985	425,750	342,300	32,250	16,700	34,550
1986	438,550	351,450	33,150	17,900	36,050
1987	458,950	366,150	35,100	19,250	38,400
1988 (p)	468,800	373,250	36,500	20,750	38,300
1987:					
1 Q	451,900	360,600	34,600	18,600	38,100
2 Q	458,450	366,100	35,100	18,950	38,250
3 Q	458,150	364,950	35,250	19,300	38,700
4 Q	467,200	372,850	35,550	20,250	38,600
1988 (p):					
1 Q	465,700	371,050	35,650	20,450	38,500
2 Q	468,250	373,500	35,700	20,600	38,500
3 Q	466,600	371,250	36,350	20,800	38,200
4 Q	474,650	377,300	38,200	21,150	38,000
	Percent change from same period in previous year				
1980	2.6	2.2	2.9	6.1	4.3
1981	0.2	-0.2	1.4	0.6	3.5
1982	-1.3	-2.0	-0.5	-0.6	5.0
1983	1.7	1.4	2.3	3.9	4.0
1984	1.6	1.3	3.6	0.1	3.5
1985	3.2	2.4	6.0	6.1	7.4
1986	3.0	2.7	2.9	7.2	4.4
1987	4.6	4.2	5.9	7.7	6.6
1988 (p)	2.1	2.0	3.9	7.7	-0.3
1987:					
1 Q	4.4	3.8	5.6	6.7	7.8
2 Q	5.2	4.7	7.0	8.2	7.4
3 Q	4.6	4.1	6.4	6.0	6.3
4 Q	4.4	4.1	4.5	10.1	4.8
1988 (p)					
1 Q	3.1	2.9	3.0	10.1	1.1
2 Q	2.1	2.0	1.7	8.5	0.6
3 Q	1.8	1.7	3.2	7.8	-1.3
4 Q	1.6	1.2	7.6	4.4	-1.6

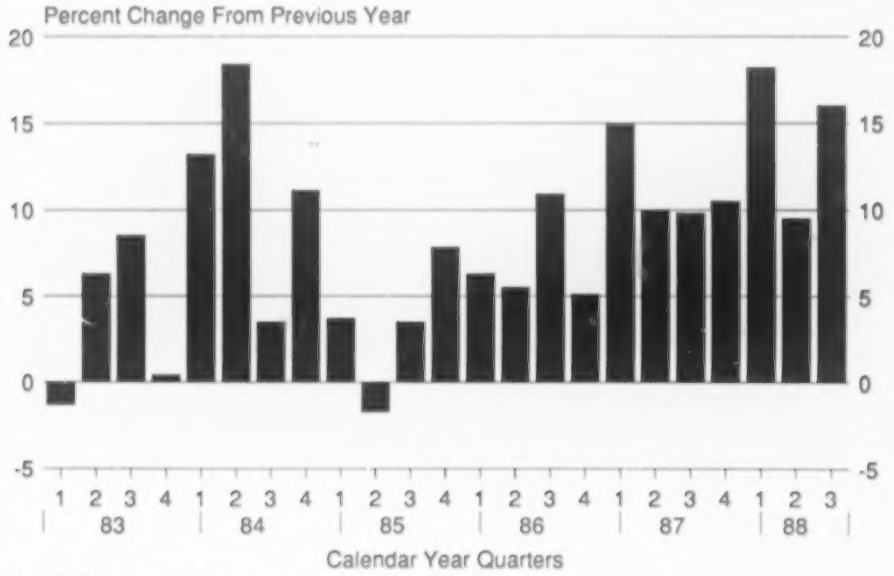
p Preliminary.
Source: Hawaii State Department of Labor and Industrial Relations.

5. BUSINESS ACTIVITY

Hawaii's economy continues to perform well with total taxable business transactions increasing 13.4 percent for the first eleven months of 1988 over the same period in 1987. Net corporate income tax collections have decreased 6.2 percent due to the capital goods excise and use tax credit enacted by the legislature. Starting in 1988 and annually thereafter, corporations will pay an estimated $10 million less in taxes as an incentive for business expansion.

Growth in personal income and increased tourist expenditures have resulted in 11.8 percent jump in retail trade activity for the January to November period. Oahu department store sales for the first seven months of 1988 show an 8.7 percent increase. December department store sales, which are generally twice the volume of other months, will not be available in 1988. The series of monthly department store sales for selected areas, which includes Oahu, by the Bureau of the Census, has been discontinued due to lack of funds. The National Retail Merchants Association is attempting to reorganize a consortium interested in providing funds to restore the series.

Figure 5-1
GROWTH IN TAXABLE BUSINESS TRANSACTIONS



SOURCE: DBED, Based on data from the Dept. of Taxation

Table 5-1
VALUE OF BUSINESS TRANSACTIONS SUBJECT TO STATE EXCISE AND USE TAX: 1980 TO 1988

[Millions of dollars]

Year	Total taxable transactions	Selected industry transactions				
		Retailing	Services	Hotel rental	Diversified agriculture	Manufacturing
1980	18,966.2	6,075.5	1,750.1	720.7	141.3	620.1
1981	20,903.8	6,690.7	1,792.1	759.4	173.3	615.9
1982	20,722.1	7,043.6	1,976.2	875.5	176.8	544.3
1983	21,416.8	7,458.8	2,128.5	858.2	221.6	502.3
1984	23,879.9	8,182.7	2,396.1	1,008.6	257.6	530.1
1985	24,630.3	8,605.2	2,529.7	1,153.4	251.6	538.3
1986	26,335.2	9,206.7	2,786.1	1,227.2	258.8	565.4
1987	29,232.3	10,010.4	3,057.4	1,434.8	264.2	588.3
1988 (Jan-Nov)	29,540.5	9,746.0	3,047.7	1,318.0	277.9	585.5
1988: 1 Q	8,349.5	2,802.6	842.5	421.5	85.2	156.0
2 Q	7,771.2	2,594.7	838.7	332.2	76.3	160.7
3 Q	8,134.6	2,694.6	825.3	358.8	71.3	145.7
	Percent change from same period in previous year					
1981	10.2	10.1	2.4	5.4	22.6	-0.7
1982	3.4	5.3	10.3	15.3	2.0	-11.6
1983	-0.9	5.9	7.7	-2.0	25.3	-7.7
1984	11.5	9.7	12.6	17.5	16.2	5.5
1985	3.1	5.2	5.6	14.4	-2.4	1.5
1986	6.9	7.0	10.1	6.4	2.9	5.0
1987	11.0	8.7	9.7	16.9	2.1	4.0
1988 (Jan-Nov)	13.4	11.8	14.7	4.9	14.0	7.5
1988: 1 Q	18.2	18.6	17.2	23.7	28.1	2.0
2 Q	9.5	10.9	14.0	-12.5	3.5	6.1
3 Q	16.0	13.1	14.4	12.3	15.9	-1.0

Note: This series derived by lagging reported excise tax base data one month to adjust for reporting delay.
Source: Hawaii State Department of Taxation.

Table 5-2
COLLECTIONS OF KEY STATE TAXES AND GENERAL FUND TAX REVENUES: 1982 TO 1988

[Thousands of dollars]

Year	General excise and use tax	Net individual income tax 1/	Net corporate income tax 2/	Tax revenues distributed to State General Fund 3/
1982	574,590	296,757	34,785	1,011,465
1983	615,536	358,072	27,960	1,109,876
1984	669,805	413,885	39,681	1,240,352
1985	707,381	446,358	44,075	1,325,791
1986	777,961	490,185	46,216	1,486,484
1987	869,039	574,729	67,272	1,731,226
1988	965,953	680,789	63,093	1,949,174
1987: 1 Q	216,699	134,394	13,647	400,595
2 Q	214,933	143,625	26,592	461,714
3 Q	219,312	138,773	17,857	430,015
4 Q	218,095	157,937	9,176	438,903
1988: 1 Q	240,506	159,295	18,135	466,092
2 Q	241,953	170,005	20,848	514,560
3 Q	241,340	168,975	16,226	483,626
4 q	242,153	182,516	7,884	484,896
	Percent change from same period in previous year			
1982	-0.1	-15.1	-20.2	-5.5
1983	7.1	20.7	-19.6	9.7
1984	8.8	15.6	41.9	11.8
1985	5.6	7.8	11.1	6.9
1986	10.0	9.8	4.9	12.1
1987	11.7	17.2	45.6	16.5
1988	11.2	18.5	-6.2	12.6
1987: 1 Q	12.9	6.9	75.3	15.4
2 Q	7.4	43.8	55.0	17.4
3 Q	10.6	7.5	19.8	13.9
4 Q	16.2	16.5	43.9	19.1
1988: 1 Q	11.0	18.5	32.9	16.4
2 Q	12.6	18.4	-21.6	11.4
3 Q	10.0	21.8	-9.1	12.5
4 Q	11.0	15.6	-14.1	10.5

Note: This series represents data as reported by the Department of Taxation, without adjustment.
1/ Declaration of estimated taxes, plus payments with returns, plus withholding tax on wages, less refunds.
2/ Declaration of estimated taxes, plus payments with returns, less refunds.
3/ Excludes non-tax sources.
Source: Hawaii State Department of Taxation.

Table 5-3
DEFENSE EXPENDITURES BY SERVICE: 1980 TO 1988

[Millions of dollars]

Year or quarter	Total	Navy and Marine 1/	Army	Air Force	Coast Guard
1980	1,317.4	711.3	441.8	141.7	22.7
1981	1,449.3	770.4	493.8	158.3	26.7
1982	1,693.4	878.2	611.5	173.7	29.9
1983	1,848.2	935.9	702.7	182.6	27.0
1984	1,867.2	948.2	685.2	207.6	26.2
1985	1,965.4	955.3	780.4	201.0	28.7
1986	1,784.9	892.0	658.6	202.4	31.9
1987	1,856.9	871.5	744.3	212.4	28.7
1987: 1 Q	444.2	214.5	172.1	49.8	7.8
2 Q	453.6	230.6	159.6	55.6	7.8
3 Q	495.3	226.5	211.3	51.2	6.2
4 Q	463.7	199.8	201.3	55.7	6.9
1988: 1 Q	466.8	194.3	209.0	58.0	6.8
2 Q	(NA)	(NA)	209.4	56.7	8.4
3 Q	(NA)	(NA)	223.0	(NA)	7.5
	Percent change from same period in previous year				
1980	7.8	11.0	2.8	9.6	2.7
1981	10.0	8.3	11.8	11.7	17.6
1982	16.8	14.0	23.8	9.7	12.0
1983	9.1	6.6	14.9	5.1	-9.7
1984	1.0	1.3	-2.5	13.7	-2.7
1985	5.3	0.7	13.9	-3.1	9.6
1986	-9.2	-6.6	-15.6	0.7	11.1
1987	4.0	-2.3	13.0	4.9	-10.0
1987: 1 Q	-2.0	-3.0	-2.3	1.8	9.9
2 Q	1.2	0.7	0.1	6.9	-3.7
3 Q	12.1	5.4	26.0	0.6	-25.3
4 Q	5.1	5.5	29.5	10.1	-16.8
1988: 1 Q	5.1	-9.4	21.4	16.5	-12.8
2 Q	(NA)	(NA)	31.2	2.0	7.7
3 Q	(NA)	(NA)	5.5	(NA)	21.0

Note: Data include all appropriated expenditures for military and civilian payrolls, services, and supplies. Excludes dependent allotments, retired military pay, and non-appropriated funds for exchanges, clubs, special services, and construction.

NA Not available.

1/ Since December 1985, Navy data partly estimated due to change in reporting method.

Source: Quarterly reports from armed forces, compiled by DBED.

Table 5-4
OAHU DEPARTMENT STORE SALES: 1986 TO 1988

[In thousands of dollars and percent]

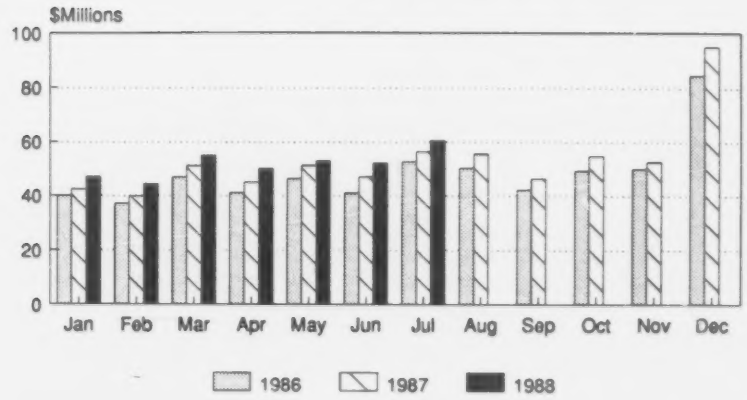
Year	Sales			Percent change from previous year	
	1986	1987	1988	1987	1988
Total	580,464	636,220	300,793	9.6	9.0
January	40,043	42,389	46,883	5.9	10.6
February	37,054	39,672	44,303	7.1	11.7
March	46,787	50,980	54,835	9.0	7.6
April	40,931	44,912	50,012	9.7	11.4
May	46,333	51,159	52,788	10.4	3.2
June	40,909	46,864	51,972	14.6	10.9
July	52,533	56,401	60,438	7.4	7.2
August	50,162	55,430		10.5	
September	42,099	46,300		10.0	
October	49,195	54,703		11.1	
November	49,856	52,464		5.2	
December	84,562	94,946		12.3	

Source: Bureau of the Census, *Current Business Reports*, "Monthly Retail Trade: Sales and Inventories," monthly. Series discontinued as of July 1988.

Figure 5-2

Oahu Department Store Sales

($ Millions)



Source: Table 5-4, based on 22 stores.
Note: Series discontinued by U.S. Dept. of Commerce as of July 1988.

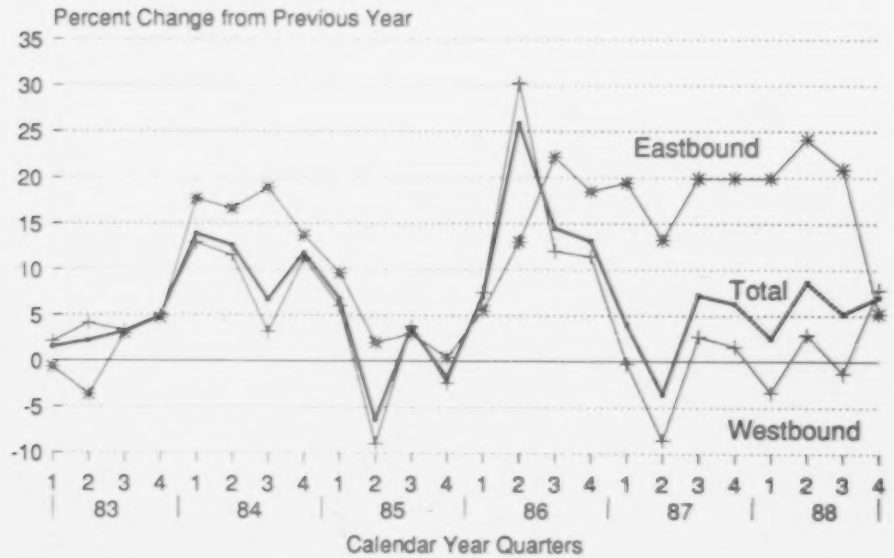
6. THE VISITOR INDUSTRY

A record 6.1 million visitors arrived in Hawaii in1988. This is an increase of over 5 percent from the previous year, exceeding projections made early in 1988. The growth is due to the continued strength of the eastbound market, mostly Japanese visitors, which jumped 17.4 percent, similar to the previous year's growth. A surge in westbound visitors in the later part of 1988 increased the estimated westbound total for the year to 1.4 percent more than the previous year.

For 1989, DBED anticipates 6.5 million visitors, a 5 percent increase over 1988, with a 4 percent rise in westbound visitors and an 8 percent growth in eastbound visitors.

Figure 6-1

GROWTH IN VISITOR ARRIVALS



SOURCE: DBED, Based on data from the Hawaii Visitors Bureau

Table 6-1
VISITOR ARRIVALS AND AVERAGE DAILY VISITOR CENSUS: 1980 TO 1988

Year 1/	Visitors staying overnight or longer			Average daily visitor census	
	Total	Westbound 2/	Eastbound 3/	Westbound 2/	All
1980	3,934,504	3,046,132	888,372	86,788	96,497
1981	3,934,623	2,974,791	959,832	85,449	95,968
1982	4,242,925	3,278,525	964,400	94,740	105,310
1983	4,368,105	3,396,115	971,990	97,390	108,040
1984	4,855,580	3,721,380	1,134,200	106,260	118,660
1985	4,884,110	3,708,610	1,175,500	103,820	116,700
1986	5,606,980	4,256,390	1,350,590	118,110	132,800
1987	5,799,830	4,204,010	1,595,820	116,780	134,100
1988 (p)	6,134,850	4,260,920	1,873,930	115,570	138,670
1987: 1 Q	1,448,860	1,084,080	364,780	127,850	144,060
2 Q	1,370,020	999,940	370,080	107,450	123,720
3 Q	1,555,160	1,102,400	452,760	118,320	138,000
4 Q	1,425,790	1,017,590	408,200	113,670	131,420
1988: 1 Q	1,484,910	1,047,440	437,470	120,950	143,320
2 Q	1,488,200	1,028,780	459,420	109,150	131,870
3 Q	1,635,570	1,088,110	547,460	113,300	140,650
4 Q (p)	1,526,170	1,096,590	429,580	118,850	139,850
	Percent change from corresponding period in previous year				
1980	-0.7	-3.0	8.2	-3.2	-2.2
1981	0.0	-2.3	8.0	-1.5	-0.5
1982	7.8	10.2	0.5	10.9	9.7
1983	3.0	3.6	0.8	2.8	2.6
1984	11.2	9.6	16.7	9.1	9.8
1985	0.6	-0.3	3.6	-2.3	-1.7
1986	14.8	14.8	14.9	13.9	13.8
1987	3.4	-1.2	18.2	-1.1	1.0
1988 (p)	5.8	1.4	17.4	-1.0	3.4
1987: 1 Q	4.0	-0.3	19.4	0.6	2.4
2 Q	-3.6	-8.6	13.2	-9.5	-7.0
3 Q	7.2	2.7	19.9	3.7	5.7
4 Q	6.3	1.6	19.9	0.5	2.8
1988: 1 Q	2.5	-3.4	19.9	-5.4	-0.5
2 Q	8.6	2.9	24.1	1.6	6.6
3 Q	5.2	-1.3	20.9	-4.2	1.9
4 Q (p)	7.0	7.8	5.2	4.6	6.4

p Preliminary.
1/ Beginning in 1984, sample size reduced from 20 to 10 percent and numbers rounded to the nearest 10.
2/ Arriving from the Mainland United States or Canada.
3/ Arriving from the Orient and Pacific areas.
Source: Hawaii Visitors Bureau.

Table 6-2
WESTBOUND VISITORS, BY COUNTY: 1981 TO 1988

Year 1/	City and County of Honolulu	Hawaii County	Maui County	Kauai County
1981	2,398,477	672,683	1,389,892	757,811
1982	2,589,190	678,170	1,550,080	733,295
1983	2,591,575	712,380	1,644,605	691,940
1984	2,901,320	760,940	1,854,690	814,590
1985	2,828,640	697,380	1,831,110	832,580
1986	3,146,030	786,930	2,003,870	1,014,650
1987	3,078,500	782,550	1,908,780	1,032,840
1988 (p)	3,029,060	787,860	1,897,000	1,050,540
1987: 1 Q	776,110	227,890	498,660	262,940
2 Q	739,190	181,350	450,740	247,150
3 Q	825,750	188,160	499,840	278,530
4 Q	737,450	185,150	459,540	244,220
1988: 1 Q	717,820	200,080	474,630	255,980
2 Q	733,650	175,400	464,130	249,290
3 Q	797,210	186,080	477,790	269,420
4 Q (p)	780,380	226,300	480,450	275,850
	Percent change from corresponding period in previous year			
1982	8.0	0.8	11.5	-3.2
1983	0.1	5.0	6.1	-5.6
1984	12.0	6.8	12.8	17.7
1985	-2.5	-8.4	-1.3	2.2
1986	11.2	12.8	9.4	21.9
1987	-2.1	-0.6	-4.7	1.8
1988 (p)	-1.6	0.7	-0.6	1.7
1987: 1 Q	-1.4	6.4	-3.0	6.4
2 Q	-9.1	-4.9	-13.2	-5.7
3 Q	1.2	2.2	-0.4	6.9
4 Q	1.2	-6.5	-2.0	-0.2
1988: 1 Q	-7.5	-12.2	-4.8	-2.6
2 Q	-0.7	-3.2	3.0	0.9
3 Q	-3.5	-1.1	-4.4	-3.3
4 Q (p)	5.8	22.2	4.6	13.0

p Preliminary.
1/ Beginning in 1984, sample size changed from 20 to 10 percent
Source: Hawaii Visitors Bureau.

Table 6-3
RESIDENCE OF OVERNIGHT AND LONGER VISITORS TO HAWAII: 1986 AND 1987

[In thousands and percent]

Place of residence	1986		1987		Percent change 1986 to 1987
	Number	% dist.	Number	% dist.	
Total	5,607	100.0	5,800	100.0	3.4
United States	3,739	66.7	3,669	63.3	-1.9
Foreign	1,868	33.3	2,131	36.7	14.1
Asia	1,083	19.3	1,313	22.6	21.2
Japan	944	16.8	-1,161	20.0	23.0
Other Asia	139	2.5	152	2.6	9.4
Canada	282	5.0	242	4.2	-14.2
Europe	99	1.8	171	3.0	72.7
United Kingdom	49	0.9	66	1.1	34.7
West Germany	30	0.5	63	1.1	110.0
Other Europe	20	0.4	42	0.8	110.0
Oceania and South Pacific	360	6.4	373	6.4	3.6
Australia	219	3.9	218	3.8	-0.5
New Zealand	98	1.7	117	2.0	19.4
Other South Pacific	43	0.8	28	0.6	-34.9
Other foreign	44	0.8	232	4.0	427.3

Source: Hawaii Visitors Bureau, tabular release dated March 1988.

Table 6-4
HOTEL OCCUPANCY RATES BY AREA: 1986 TO 1988

[Percent; survey excludes some large hotel chains]

Date	State	Oahu	Hawaii Island	Maui Island	Kauai Island	Molokai
1986	81.2	85.2	62.2	82.7	76.7	50.3
1987	81.1	86.8	60.8	76.2	74.2	45.4
1988	78.5	85.4	56.4	73.2	67.5	45.3
1987:						
January	82.6	89.4	68.4	74.7	67.1	72.0
February	92.6	95.8	84.1	89.6	85.6	74.0
March	88.1	92.9	66.0	85.3	84.2	58.2
April	75.9	79.6	57.1	76.8	70.3	40.1
May	77.1	80.2	60.3	76.8	77.2	37.7
June	78.3	86.9	47.4	69.6	70.5	31.7
July	82.9	90.6	55.7	73.8	78.3	35.1
August	87.4	93.2	65.8	82.4	82.9	39.8
September	75.7	82.2	52.3	68.8	70.3	33.1
October	80.9	85.7	60.1	77.8	79.1	39.7
November	78.5	84.0	58.4	75.6	69.2	38.8
December	71.0	78.3	52.6	62.1	54.0	44.9
1988:						
January	76.2	84.8	58.1	67.2	55.6	50.1
February	86.7	91.9	70.8	81.9	78.4	58.7
March	82.3	87.6	59.3	82.0	72.9	51.3
April	74.1	78.2	54.5	76.7	65.6	38.6
May	73.4	79.5	46.2	70.6	69.8	40.5
June	77.7	86.9	48.2	70.5	62.8	34.4
July	81.2	90.2	55.0	72.2	66.9	40.1
August	86.7	93.8	64.2	82.0	74.4	43.8
September	76.1	85.2	47.5	65.8	67.3	40.4
October	80.4	85.7	59.6	76.3	76.1	50.2
November	74.5	80.5	55.8	69.4	64.7	52.5
December	70.5	78.3	55.2	61.8	53.1	41.0

Source: Pannell Kerr Forster & Company, *Trends in the Hotel Industry, Hawaii.*

Table 6-5
VISITOR ACCOMMODATIONS IN HAWAII, BY TYPE: 1977 TO 1988

[As of February]

Year and Island	Properties			Units		
	Total	Hotels 1/	Condo-miniums 2/	Total	Hotels 1/	Condo-miniums 2/
1977	335	(NA)	(NA)	44,986	39,901	5,085
1978	353	(NA)	(NA)	47,070	40,001	7,069
1979	381	(NA)	(NA)	49,832	41,299	8,533
1980	387	(NA)	(NA)	54,246	42,609	11,637
1981	412	214	198	56,769	42,575	14,194
1982	417	208	209	57,968	43,568	14,400
1983	426	218	208	58,765	45,352	13,413
1984	443	209	234	62,448	44,846	17,602
1985	481	207	274	65,919	44,115	21,804
1986	523	201	322	66,308	43,309	22,999
1987	510	196	314	65,318	43,422	21,896
1988	481	203	278	69,012	47,892	21,120
ISLANDS: 1988						
Oahu	183	110	73	37,841	30,206	7,635
Waikiki 3/	150	89	61	33,661	26,911	6,750
Rest of Oahu	33	21	12	4,180	3,295	885
Other islands	298	93	205	31,171	17,686	13,485
Hawaii	75	29	46	8,823	6,469	2,354
Kauai	78	32	46	7,180	4,325	2,855
Maui	137	29	108	14,591	6,556	8,035
Molokai	7	2	5	567	326	241
Lanai	1	1	-	10	10	-

NA Not available.
1/ Hotels, apartment hotels, motels, and cottages.
2/ Condominium accommodations in rental pools for transient use.
3/ Includes Diamond Head and Kahala but not areas ewa and mauka (west and north) of the Ala Wai Canal.
Source: Hawaii Visitors Bureau, *Visitor Plant Inventory*, 1976 to 1988.

Table 6-6
AVERAGE DAILY HOTEL ROOM RATES, BY ISLANDS: 1970 TO 1988

[Dollars]

Year	State	Oahu	Hawaii	Maui	Kauai	Molokai
1970	25.74	(NA)	(NA)	(NA)	(NA)	(NA)
1975	29.75	(NA)	(NA)	(NA)	(NA)	(NA)
1976	29.54	26.70	30.52	37.61	34.51	(NA)
1977	34.28	31.87	33.08	42.59	38.45	(NA)
1978	38.56	35.90	36.70	47.86	42.25	(NA)
1979	44.40	41.42	41.44	57.15	47.75	(NA)
1980	47.37	42.70	46.40	61.34	55.16	(NA)
1981	49.87	43.16	47.16	73.44	56.06	(NA)
1982	51.78	44.80	47.37	75.02	58.48	(NA)
1983	55.58	47.62	50.49	81.60	59.75	(NA)
1984	59.25	49.45	57.17	88.89	65.05	(NA)
1985	65.66	57.00	65.35	96.75	69.51	(NA)
1986	72.67	61.99	73.88	115.33	71.56	56.73
1987	80.09	69.04	82.21	127.05	81.65	64.26
1988	87.94	75.66	87.15	134.26	94.04	59.06
	Percent change from previous year					
1976	-0.7	(NA)	(NA)	(NA)	(NA)	(NA)
1977	16.1	19.4	8.4	13.2	11.4	(NA)
1978	12.5	12.7	10.9	12.4	9.9	(NA)
1979	15.2	15.4	12.9	19.4	13.0	(NA)
1980	6.7	3.1	12.0	7.3	15.5	(NA)
1981	5.2	1.1	1.6	19.7	1.6	(NA)
1982	3.8	3.8	0.4	2.2	4.3	(NA)
1983	7.4	6.3	6.6	8.8	2.2	(NA)
1984	6.6	3.8	13.2	8.9	8.9	(NA)
1985	10.8	15.3	14.3	8.8	6.9	(NA)
1986	11.5	9.0	15.1	17.5	8.4	(NA)
1987	10.2	11.4	11.3	10.2	14.1	13.3
1988	9.9	9.7	6.0	5.7	15.2	-8.1

NA Not available.
Source: Pannell Kerr Forster & Company, *Trends in the Hotel Industry, Hawaii.*

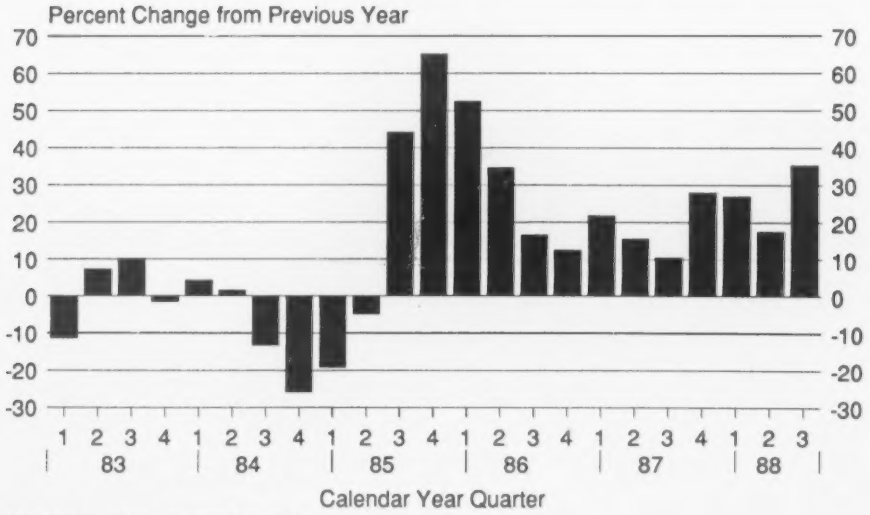
7. CONSTRUCTION

The construction industry continued to expand in 1988 with the value of construction completed climbing approximately 2.6 percent from 1987. Growth is expected to continue in 1989, indicated by building permits issued for future construction. The value of private building authorizations increased 20 percent in 1988. In addition, the value of government contracts awarded jumped nearly 75 percent. Contributing to the growth were a number of large road construction projects, the Chinatown Gateway Plaza ($8.9 million), initial construction at the Hawaii State Hospital ($28 million), and the new city bus facility ($17.4 million).

The Honolulu construction cost indexes have slowly edged upward since 1985 when prices showed only a 2 to 3 percent gain. Estimates for 1988 show a 5.6 percent rise for single-family residence construction and a 4.4 percent growth for high-rise construction. The increase is attributed to jumps in the prices of materials while labor costs have remain at the 3 percent growth level.

Figure 7-1

GROWTH IN CONSTRUCTION EXPENDITURES



SOURCE: DBED, Based on data from the Dept. of Taxation

Table 7-1
ESTIMATED VALUE OF COMPLETED CONSTRUCTION, NEW PRIVATE BUILDING AUTHORIZATIONS, AND GOVERNMENT CONTRACTS AWARDED: 1985 TO 1988

[Millions of dollars]

Year	Value of construction completed 1/	Private building authorizations				Government contracts awarded
		Total private authorization	Residential	Commercial and industrial 2/	Additions and alterations	
1985	1,429.6	889.0	500.1	208.8	180.1	248.5
1986	1,810.0	1,024.1	455.5	266.3	302.3	425.1
1987	2,145.5	1,161.9	507.0	344.4	310.5	372.2
1988 3/	2,350.5	1,354.2	643.1	406.7	304.4	649.2
1988: 1 Q	590.6	317.4	135.1	112.2	70.1	121.8
2 Q	588.7	357.7	207.7	86.5	63.6	108.1
3 Q	698.1	334.1	183.1	66.4	84.6	207.1
4 Q 3/	473.0	345.1	117.3	141.6	86.2	212.2
	Percent change from corresponding period in previous year					
1985	16.5	52.9	52.6	100.8	20.2	-39.6
1986	26.6	15.7	-10.6	32.7	68.7	71.1
1987	18.5	13.5	11.3	29.3	2.7	-12.4
1988 3/	26.0	20.4	32.7	20.3	0.8	74.4
1988: 1 Q	27.0	27.6	10.1	54.3	31.3	25.3
2 Q	17.5	10.0	54.2	6.9	-42.0	19.6
3 Q	35.3	24.3	53.9	-1.9	3.3	65.5
4 Q 3/	23.3	22.3	8.3	21.3	51.2	256.6

NA Not available.

1/ Value of construction subject to State excise tax, adjusted to reflect reporting delay of about one month.

2/ Includes hotels.

3/ Excludes fourth quarter data for Maui County building private authorizations and value of construction completed for December. Percent computations based on comparable periods and coverage.

Source: Hawaii State Department of Taxation; County building departments; Trade Publishing Co., *Building Industry Digest: BID Service Weekly.*

Table 7-2
ESTIMATED VALUE OF PRIVATE BUILDING CONSTRUCTION AUTHORIZATIONS, BY COUNTY: 1980 TO 1988

[Millions of dollars]

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
1980	1,219.2	686.3	146.0	133.3	253.7
1981	802.0	454.1	136.5	67.7	143.7
1982	683.1	473.0	75.2	44.2	90.7
1983	685.2	366.8	86.7	140.5	91.3
1984	581.5	378.3	90.3	53.0	59.8
1985	889.0	524.8	121.3	63.9	178.9
1986	1,024.1	545.3	231.5	93.2	154.1
1987	1,161.9	749.5	145.2	103.5	163.8
1988 1/	1,354.2	743.1	175.0	213.7	222.5
1987 1 Q	248.8	156.9	27.7	29.6	34.7
2 Q	325.2	221.0	34.7	22.7	46.8
3 Q	268.6	153.3	38.3	32.0	45.1
4 Q	319.3	218.3	44.6	19.2	37.2
1988 1 Q	317.4	154.1	36.8	31.2	95.2
2 Q	357.7	216.6	40.4	35.0	65.6
3 Q	334.1	193.1	53.4	26.1	61.6
4 Q 1/	345.1	179.2	44.5	121.4	(NA)
	Percent change from corresponding period in previous year				
1980	39.4	36.9	30.1	17.1	72.0
1981	-34.2	-33.8	-6.5	-49.2	-43.4
1982	-14.8	4.2	-44.9	-34.7	-35.0
1983	0.3	-22.4	15.3	217.5	0.6
1984	-15.1	3.1	4.3	-62.3	-34.4
1985	52.9	38.7	34.3	20.5	199.0
1986	15.2	3.9	90.8	45.9	-13.9
1987	13.5	37.5	-37.3	11.0	6.3
1988 1/	20.4	-0.9	20.5	106.5	75.8
1987 1 Q	1.6	4.0	25.4	-29.7	15.8
2 Q	47.2	95.7	-40.7	41.9	40.8
3 Q	-24.3	-7.3	-67.9	66.8	-13.3
4 Q	56.9	86.7	40.3	20.8	-4.4
1988 1 Q	27.6	-1.8	32.9	5.4	174.4
2 Q	10.0	-2.0	16.4	54.2	40.2
3 Q	24.3	26.0	39.4	-18.4	36.6
4 Q 1/	22.3	-17.9	-0.2	532.3	(NA)

NA Not available.

1/ Excludes Maui County building authorizations for the fourth quarter. Percent computations based on comparable periods and coverage.

Source: County building departments.

Table 7-3
ESTIMATED VALUE OF GOVERNMENT CONSTRUCTION CONTRACTS AWARDED IN HAWAII, BY AWARDING AGENCY: 1980 TO 1988

[Millions of dollars]

Year	Total	Federal	State	County
1980	230.6	66.5	120.0	44.1
1981	427.5	176.1	180.5	70.9
1982	392.7	139.6	182.0	71.2
1983	277.9	84.7	126.8	66.4
1984	411.8	130.0	196.7	85.1
1985	248.5	74.8	93.8	79.9
1986	425.1	101.9	205.4	117.8
1987	372.2	107.9	174.2	90.1
1988	649.2	170.5	349.8	128.9
1987: 1 Q	97.2	18.3	51.9	27.0
2 Q	90.4	12.4	39.4	38.6
3 Q	125.1	56.7	52.8	15.6
4 Q	59.5	20.4	30.1	8.9
1988: 1 Q	121.8	36.1	51.7	34.0
2 Q	108.1	12.6	88.7	6.8
3 Q	207.1	29.0	156.6	21.5
4 Q	212.2	92.8	52.8	66.6
	Percent change from corresponding period in prevous year			
1980	-40.7	-37.1	-45.7	-28.8
1981	85.4	164.8	50.5	60.6
1982	-8.1	-20.7	0.8	0.4
1983	-29.3	-39.3	-30.3	-6.7
1984	48.2	53.4	55.1	28.2
1985	-39.6	-42.4	-52.3	-6.2
1986	71.1	36.2	119.1	47.4
1987	-12.4	5.9	-15.2	-49.3
1988	74.4	58.0	100.8	43.1
1987: 1 Q	21.8	31.7	9.0	47.5
2 Q	-20.8	80.2	-19.2	-34.0
3 Q	-20.6	53.9	-41.9	-48.0
4 Q	-16.9	-43.5	-74.7	-81.2
1988: 1 Q	25.3	97.3	-0.4	25.9
2 Q	19.6	1.6	125.1	-82.4
3 Q	65.5	-48.9	196.6	37.8
4 Q	256.6	354.9	75.4	648.3

Source: Trade Publishing Co., *Building Industry Digest: BID Service Weekly*, and First Hawaiian Bank, Research Division.

Table 7-4
NUMBER OF SINGLE-FAMILY AND MULTI-FAMILY HOUSING UNITS AUTHORIZED BY COUNTY: 1980 TO 1988

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Single-family and duplex units:					
1980	4,058	1,645	1,204	401	808
1981	2,649	728	1,048	409	464
1982	2,285	725	800	230	530
1983	3,417	1,627	938	291	561
1984	4,442	2,513	928	361	640
1985	4,951	2,436	1,046	453	1,016
1986	4,700	2,173	1,144	438	945
1987	6,066	2,870	1,442	599	1,155
1988 1/	5,948	2,158	1,674	702	1,414
1987 1 Q	1,523	749	325	137	312
2 Q	1,639	843	337	148	311
3 Q	1,429	590	399	161	279
4 Q	1,475	688	381	153	253
1988 1 Q	1,323	359	352	202	410
2 Q	1,767	722	403	188	454
3 Q	1,987	748	515	174	550
4 Q 1/	871	329	404	138	(NA)
Multi-family units:					
1980	6,603	3,297	727	766	1,813
1981	3,142	1,873	270	64	935
1982	4,594	4,109	245	118	122
1983	1,341	1,220	38	73	10
1984	1,021	829	153	35	4
1985	2,450	1,807	128	84	431
1986	2,479	1,986	21	-	472
1987	1,459	785	138	-	536
1988 1/	2,128	1,168	446	21	493
1987 1 Q	488	488	-	-	-
2 Q	567	80	77	-	410
3 Q	99	99	-	-	-
4 Q	305	118	61	-	126
1988 1 Q	428	162	222	-	44
2 Q	702	449	-	-	253
3 Q	528	108	224	-	196
4 Q 1/	470	449	-	21	(NA)

NA Not available.
1/ Excludes Maui County building authorizations for the fourth quarter.
Source: County building departments.

Table 7-5
HONOLULU CONSTRUCTION COST INDEXES: 1983 TO 1988

[1982=100]

Year	Single-family residence			High-rise building		
	All components	Material prices	Labor 1/	All components	Material prices	Labor 1/
1983	109.5	111.3	107.3	106.9	107.4	106.9
1984	114.3	113.1	115.8	110.9	108.0	114.5
1985	117.4	115.2	120.1	113.5	108.7	118.4
1986	121.5	119.1	124.4	116.8	110.8	122.6
1987	125.7	123.7	128.2	120.7	114.9	125.8
1988	132.8	133.2	132.2	126.1	121.6	130.1
1987: 1 Q	123.9	120.7	127.9	119.8	112.9	125.7
2 Q	124.6	121.6	128.3	120.8	115.0	125.8
3 Q	126.3	124.8	128.3	121.2	115.8	125.8
4 Q	128.0	127.7	128.3	121.2	115.8	125.8
1988: 1 Q	132.8	134.2	131.0	126.3	124.3	127.9
2 Q	130.8	129.9	132.0	124.3	117.8	129.8
3 Q	132.7	132.6	132.8	125.7	119.7	130.9
4 Q	134.8	136.2	133.0	128.1	124.8	131.0
	Percent change from corresponding period in previous year					
1983	9.5	11.3	7.3	6.9	7.4	6.9
1984	4.3	1.6	7.9	3.8	0.6	7.1
1985	2.7	1.9	3.7	2.4	0.6	3.4
1986	3.5	3.4	3.6	2.9	1.9	3.5
1987	3.5	3.8	3.0	3.4	3.7	2.7
1988	5.6	7.7	3.2	4.4	5.9	3.4
1987: 1 Q	3.0	2.2	3.8	2.3	0.4	3.8
2 Q	4.2	4.1	4.1	4.8	5.9	3.9
3 Q	4.2	5.1	3.2	4.2	4.1	2.9
4 Q	2.6	3.8	1.1	2.3	4.5	0.5
1988: 1 Q	7.2	11.2	2.4	5.4	10.1	1.8
2 Q	5.0	6.8	2.9	2.9	2.4	3.2
3 Q	5.1	6.2	3.5	3.7	3.4	4.1
4 Q	5.3	6.7	3.7	5.7	7.8	4.1

1/ Includes wages and benefits.
Source: First Hawaiian Bank, Research Division.

8. POPULATION ESTIMATES FOR DISTRICTS

One of the most frequently requested sets of estimates is an annual series of population estimates for the 28 districts of the State. These figures, prepared by the Department of Business and Economic Development (DBED) Statistics Branch, are consistent with the annual county estimates issued by the Federal-State Cooperative Program for Local Population Estimates, a group made up of the U.S. Bureau of the Census, the Department of Health, and DBED.

Recently completed figures for 1987, based largely on utility trends, are given in table 8-1 and 8-2. These estimates reveal the most rapidly growing districts since 1980 to be Hanalei on Kauai (up 84.1 percent during the 7.25-year period) and Puna, South Kohala, and North Kona on the Big Island (with increases of, respectively, 61.8, 54.3, and 49.0 percent). Maui, the most rapidly increases greater than 33.9 percent (in and Waimea (1.3 percent).

During the 37 years from 1950 to 1987, only one district, North Hilo, consistently lost population, from 3,505 in 1950 to an estimated 1,500 in 1987. Ten districts consistently gained population -- all 7 Oahu districts, South Kohala and North Kona on the Big Island, and Kawaihau on Kauai.

Mechanization of the agricultural industries during the 1950's and 1960's reduced economic opportunities in the Neighbor Islands, causing an outmigration from most areas. However, since the 1970's, the boom in tourism has contributed to the growth of many of these areas. During the 1980's, the top 5 percentage gainers in population have all been on the Neighbor Islands.

The estimates will be published in a forthcoming DBED report, *Statistical Report 211, County and District Trends in Hawaii, 1988.*

Top 5 Population Gainers

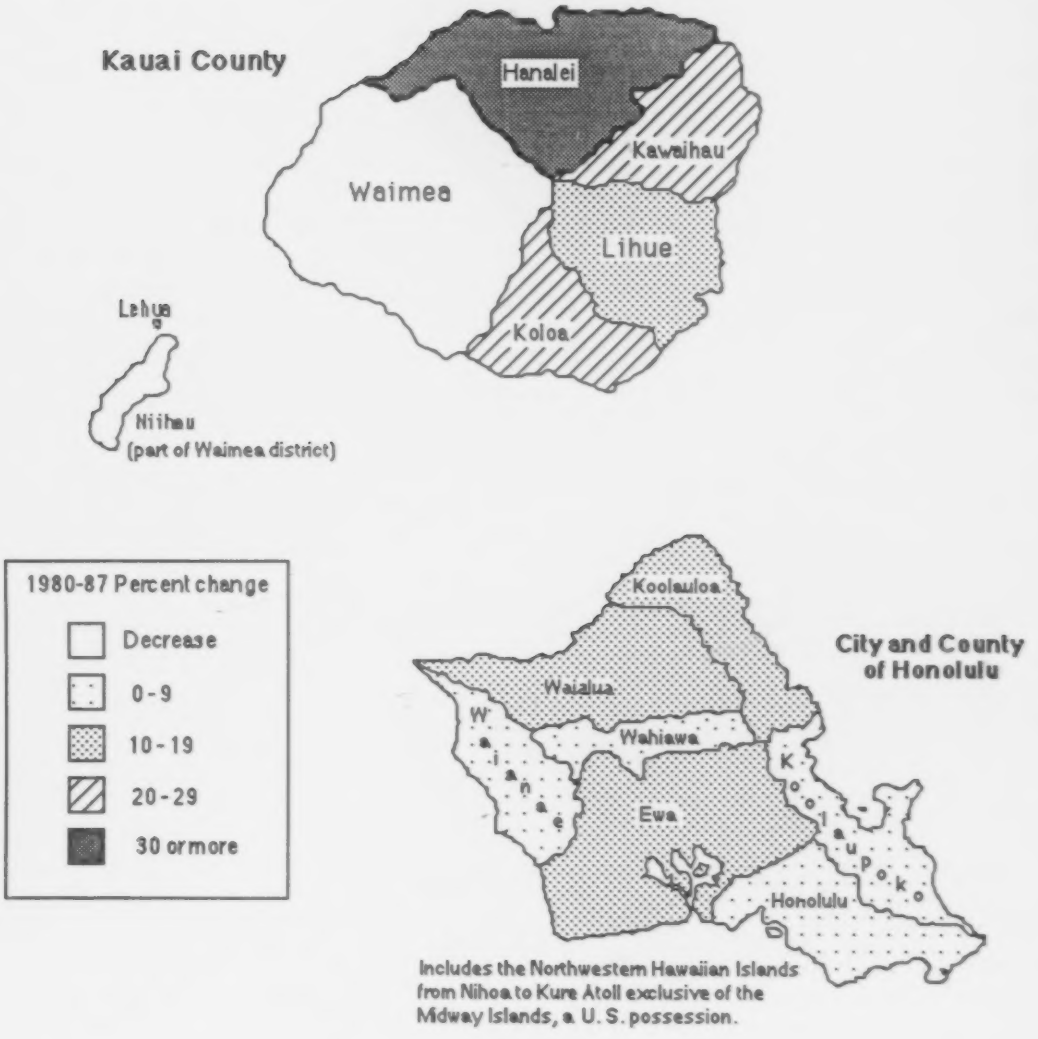
[In percent]

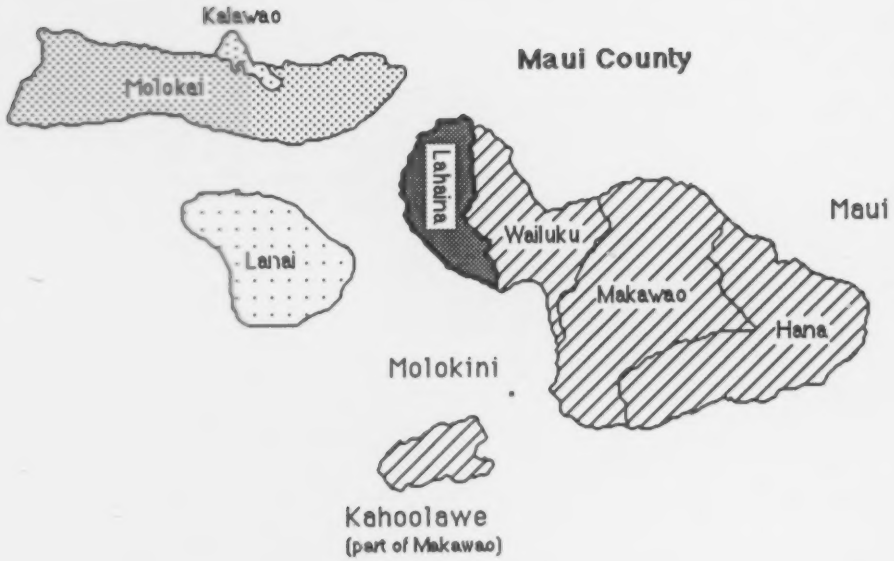
1950-60		1980-87	
Koolaupoko, Oahu	189.9	Hanalei, Kauai	84.1
Waianae, Oahu	134.2	Puna, Hawaii	61.8
Wahiawa, Oahu	99.2	South Kohala, Hawaii	54.3
Ewa, Oahu	68.5	North Kona, Hawaii	49.0
Koolauloa, Oahu	54.0	Lahaina, Maui	33.9

Figure 8-1

GROWTH OF RESIDENT POPULATION BY DISTRICTS: 1980 to 1987

(in percent)




Kalawao
Molokai
Maui County
Lahaina
Wailuku
Maui
Lanai
Makawao
Hana
Molokini
Kahoolawe
(part of Makawao)

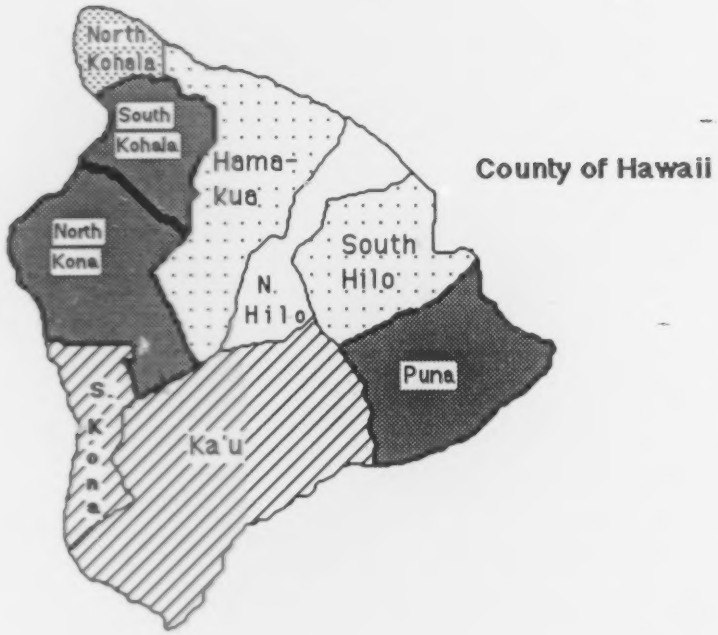

North Kohala
South Kohala
Hama-kua
County of Hawaii
North Kona
South Hilo
N. Hilo
Puna
S. Kona
Ka'u

Table 8-1
RESIDENT POPULATION OF COUNTIES AND DISTRICTS: 1950 TO 1987

County and district	April 1, 1950	April 1, 1960	April 1, 1970	April 1, 1980	July 1, 1987
State total	499,794	632,772	769,913	964,691	1,082,445
Hawaii County	68,350	61,332	63,468	92,053	114,300
Puna	6,747	5,030	5,154	11,751	19,000
South Hilo	34,448	31,553	33,915	42,278	45,300
North Hilo	3,505	2,493	1,881	1,679	1,500
Hamakua	6,056	5,221	4,648	5,128	5,300
North Kohala	4,456	3,386	3,326	3,249	3,600
South Kohala	1,505	1,538	2,310	4,607	7,100
North Kona	3,607	4,451	4,832	13,748	20,500
South Kona	3,723	4,292	4,004	5,914	7,300
Ka'u	4,303	3,368	3,398	3,699	4,700
Maui County	48,519	42,855	46,156	70,991	90,045
Hana	1,495	1,073	969	1,423	1,800
Makawao	12,800	10,409	9,979	19,005	24,200
Wailuku	19,835	19,391	22,219	32,111	41,400
Lahaina	5,973	4,844	5,524	10,284	13,800
Lanai	3,136	2,115	2,204	2,119	2,200
Molokai	4,940	4,744	5,089	5,905	6,500
Kalawao	340	279	172	144	145
City & Co. of Honolulu	353,020	500,409	630,528	762,565	830,600
Honolulu	248,034	294,194	324,871	365,048	381,100
Koolaupoko	20,779	60,238	92,219	109,373	116,600
Koolauloa	5,223	8,043	10,562	14,195	16,400
Waialua	7,906	8,221	9,171	9,849	11,200
Wahiawa	17,363	34,595	37,329	41,562	44,500
Waianae	7,024	16,452	24,077	31,487	34,300
Ewa	46,691	78,666	132,299	191,051	226,500
Kauai County	29,905	28,176	29,761	39,082	47,500
Hanalei	1,619	1,312	1,182	2,668	4,900
Kawaihau	6,291	6,498	7,393	10,497	13,200
Lihue	6,760	6,297	6,766	8,590	9,700
Koloa	7,286	7,012	6,851	8,734	11,200
Waimea	7,949	7,057	7,569	8,593	8,500

Source: Robert C. Schmitt, *Historical Statistics of Hawaii*, (University Press of Hawaii, 1977), table 1.6, DBED unpublished estimates.

Table 8-2
GROWTH OF RESIDENT POPULATION OF COUNTIES AND DISTRICTS: 1950 TO 1987

[Percent change]

County and district	1950-60	1960-70	1970-80	1980-87
State total	26.6	21.7	25.3	12.2
Hawaii County	-10.3	3.5	45.0	24.3
Puna	-25.4	2.5	128.0	61.8
South Hilo	-8.4	7.5	24.7	7.3
North Hilo	-28.9	-24.5	-10.7	-12.1
Hamakua	-13.8	-11.0	10.3	3.9
North Kohala	-24.0	-1.8	-2.3	11.0
South Kohala	2.2	50.2	99.4	54.3
North Kona	23.4	8.6	184.5	49.0
South Kona	15.3	-6.7	47.7	23.8
Ka'u	-21.7	0.9	8.9	28.2
Maui County	-11.7	7.7	53.8	26.6
Hana	-28.2	-9.7	46.9	23.1
Makawao	-18.7	-4.1	90.4	27.2
Wailuku	-2.2	14.6	44.5	28.9
Lahaina	-18.9	14.0	86.2	33.9
Lanai	-32.6	4.2	-3.9	2.2
Molokai	-4.0	7.3	16.0	10.5
Kalawao	-17.9	-38.4	-16.3	0.7
City & Co. of Honolulu	41.8	26.0	20.9	8.9
Honolulu	18.6	10.4	12.4	4.4
Koolaupoko	189.9	53.1	18.6	6.6
Koolauloa	54.0	31.3	34.4	15.6
Waialua	4.0	11.6	7.4	13.6
Wahiawa	99.2	7.9	11.3	7.1
Waianae	134.2	46.3	30.8	8.9
Ewa	68.5	68.2	44.4	18.6
Kauai County	-5.8	5.6	31.3	21.7
Hanalei	-19.0	-9.9	125.7	84.1
Kawaihau	3.3	13.8	42.0	26.0
Lihue	-6.8	7.4	27.0	13.2
Koloa	-3.8	-2.3	27.5	28.5
Waimea	-11.2	7.3	13.5	-1.3

Source: Table 8-1.

Table 9-1
RECENT ECONOMIC AND DEMOGRAPHIC TRENDS: STATE OF HAWAII

Series 1/	Unit	Period 2/	Number	Percent change from same period in previous year
Resident population	Persons	7/1/87	1,082,500	1.7
City and County of Honolulu	Persons	7/1/87	830,600	1.3
Hawaii County	Persons	7/1/87	114,400	2.9
Kauai Island	Persons	7/1/87	47,400	3.1
Niihau	Persons	7/1/87	202	-5.6
Maui Island	Persons	7/1/87	81,100	3.6
Molokai	Persons	7/1/87	6,700	0.8
Lanai	Persons	7/1/87	2,200	-0.9
Personal income	$ Million	3rd Q	18,756	9.6
Consumer price index:				
Honolulu	(1982-84 = 100)	Jan-June	120.1	6.0
U.S.	(1982-84 = 100)	Jan-June	116.8	3.9
Construction:				
Private permits 3/	$ Million	Jan-Dec	1,354.2	20.4
Residential permits	$ Million	Jan-Dec	643.1	32.7
New single-family units	Number	Jan-Dec	5,948	2.3
New multi-family units	Number	Jan-Dec	2,128	59.6
Commercial & industrial	$ Million	Jan-Dec	406.7	20.3
Additions & alterations	$ Million	Jan-Dec	304.4	0.8
Government contracts awarded	$ Million	Jan-Dec	649.2	74.4
Construction cost indexes (Honolulu):				
Single-family units	(1982 = 100)	Jan-Dec	132.8	5.6
High-rise buildings	(1982 = 100)	Jan-Dec	126.1	4.4
Employment (p):				
Civilian labor force	Persons	Jan-Dec	522,500	1.5
Civilian employment	Persons	Jan-Dec	506,150	2.2
Civilian unemployment	Persons	Jan-Dec	16,350	-18.3
Unemployment rate	Percent	Jan-Dec	3.1	-
Total jobs	Number	Jan-Dec	519,650	2.1
Visitor industry:				
Total visitors (p)	Number	Jan-Dec	6,134,850	5.8
Westbound	Number	Jan-Dec	4,260,920	1.4
Eastbound	Number	Jan-Dec	1,873,930	17.4
Visitor expenditures (p)	$ Billion	1987	6.6	18.9
Hotel units	Number	February	69,012	5.7
Defense expenditures	$ Million	1987	1,856.9	4.0
Sugar production (p)	$ Million	1987	335.9	-7.2
Pineapple sales (p)	$ Million	1987	251.8	4.0

p Provisional estimates.

1/ Statewide data, unless indicated otherwise.

2/ Data for 1988, unless otherwise noted.

3/ Excludes fourth quarter data for Maui County, percentages based on comparable coverage.

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DEPARTMENT OF BUSINESS
AND ECONOMIC DEVELOPMENT

QUARTERLY

STATISTICAL & ECONOMIC REPORT

RESEARCH & ECONOMIC ANALYSIS DIVISION

- The Economy: Recent Trends and Outlook
- The Honolulu Consumer Price Index, 1988
- Statistical Tables

1st QUARTER 1989

STATE OF HAWAII 1959

This quarterly report has been prepared by the Research and Economic Analysis Division of the State Department of Business and Economic Development (DBED). It presents information and analysis concerning current statistical and economic trends affecting Hawaii. Technical notes and source descriptions have been kept to a minimum. However, the staff of the Research and Economic Analysis Division will be happy to respond to any inquiries of a technical nature that readers may have (548-3067).

The report was prepared under the direction of Dr. Richard Y. P. Joun, Head, Research and Economic Analysis Division, by Robert C. Schmitt, Sharon Nishi, and Robert Shore.

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1. The Economy -- Recent Trends and Outlook

Tourism to Hawaii posted strong gains in the first quarter of 1989, suggesting that the State's three-year surge in visitor activity is not ready to subside.

Despite an impressive increase in Gross National Product (GNP), numerous indicators began signaling a slowing in the U.S. economy during the first quarter of the year, but how significant any slowdown will be and what it will mean for interest rates and inflation in the near future was uncertain.

The outlook for the U.S. economy is for slower growth, although a full-fledged recession is still not on the horizon. Interest rates may peak near the end of the second quarter although inflation is expected to remain at or above current levels for some time to come.

CURRENT ECONOMIC CONDITIONS

Hawaii's Economy

A somewhat surprising, 13 percent increase in visitor arrivals during the first three months of 1989 raised prospects for a stronger year for tourism then earlier predicted. Most forecasts for 1989 had anticipated a 5 to 6 percent overall increase in tourism, stemming from a slower growth in Japanese visitors to Hawaii and only a modest increase in visitors from the U.S. Mainland and Canada. This outlook was reinforced by a sharp fall in the growth rate of eastbound visitor traffic in the last quarter of 1988. But eastbound visitor arrivals bounced back to a 14 percent increase in the first quarter of the year compared to the same 1988 period, while westbound arrivals surged over 12 percent from the corresponding months a year earlier. Although the first quarter increase was encouraging, it primarily represented results of winter tourism. Arrival patterns could change as summer nears, bringing with it a different tourist mix. Thus, the earlier forecasts for the year as a whole are not yet obsolete.

Outside of tourism, business activity continued brisk into the first quarter of the year. Gross business receipts for excise tax purposes were up 12 percent in the first two months with services showing a 14 percent increase over the same period a year earlier.

Despite steadily rising interest rates, construction activity remained strong. Contractors' gross receipts showed an 13 percent increase in the January to February period from a year earlier. The value of new building permits, an indication of future construction activity, increased 64 percent in the first quarter of 1989 over the same 1988 period. This follows a 66 percent increase in the fourth quarter of 1988.

Brisk economic activity continued to keep unemployment at a low level, with the Statewide unemployment rate averaging 3.4 percent in January and February. This rate is up slightly from a 3.1 percent rate during the last quarter of 1988, as a result of seasonal factors.

National Economic Situation

First quarter GNP grew at an unusually high annual rate of 5.5 percent. It is thought that about 2.5 percentage points of that growth were due to post-drought recovery activity. Still, this left 3.0 percent of solid growth which would be the best performance for the economy since the first quarter of last year.

The GNP results conflicted somewhat with other indications that the U.S. economy was slowing in the first quarter of 1989. Construction authorizations and auto sales fell in the first quarter, and the Commerce Department's index of leading economic

indicators dipped slightly in March for the second straight month. Part of the reason for the mixed signals is that the GNP rise was driven by exports and inventory build up, while domestic sales slackened. Domestic activity could pick up in the second quarter since consumers have plenty of money and manufacturers, particularly the auto companies, have been quick to reinstitute incentives to reverse slumping sales.

All this leaves some uncertainty as to where the economy is really headed and what it means for the two economic factors of most interest to consumers at the moment--interest rates and inflation. The Federal Reserve System had been forcing interest rates up by slowing the growth in the nation's money supply for over a year now, in an effort to keep the economy from exceeding its capacity and igniting an inflationary price spiral. For some months, short-term interest rates have been edging up above long-term rates, and the higher cost of short-term financing has slowed orders for durable goods, car sales and even construction since the beginning of the year. A slowing economy is good news for interest rates because it means borrowing will decline. At the same time, however, inflationary pressures lag behind current conditions and could plague the economy for some months, even while business activity is slowing. Producer prices shot up at an annual rate of 10.2 percent in the first quarter of the year, while consumer prices rose at a 6.1 percent annual rate. The Federal Reserve System has apparently decided to hold steady on interest rates until more economic information is available. If the economy continues to slow, the Federal Reserve may keep interest rates steady until inflation begins to subside. However, if the economy starts to pick up again in the near future under current interest rate levels, it would almost certainly prompt more credit tightening.

OVERALL ECONOMIC OUTLOOK

The composite or "consensus" forecast for the U.S. economy distilled from over 50 national forecasts by the publication *Blue Chip Economic Indicators* anticipates a slowing economy into 1990. Overall, real GNP is expected to grow 2.8 percent in 1989. But a slowdown in growth is expected to set in after mid year and extend well into 1990, resulting in an overall 1.5 percent increase in GNP between 1989 and 1990. Short-term interest rates are expected to peak in mid-1989 but long-term rates will show only minor improvement until progress is made in reversing the current upward inflationary trend. Currently, the consensus forecast does not anticipate a down trend in the inflation rate until the third quarter of this year, although in the interim, inflation is not expected to move much beyond its recent 5 to 6 percent per annum range. Table 1-1 summarizes the most recent national outlook.

The DBED outlook for Hawaii continues to anticipate some slowing in economic activity as the year progresses, despite the strong visitor market in the first quarter of the year. Nationally, slower growth and higher inflation should begin to slow tourism from the Mainland while sustained high interest rates will eventually begin impacting on construction activity. Still, there is enough uncertainty over just how weak the U.S. economy really is (or will be) to advise against firm conclusions about where the State's economy might be headed until trends become more clear. An updated DBED forecast will be presented in the next *Quarterly Statistical and Economic Report*.

Table 1–1
U.S. Economic Forecast to 1990

	Actual	Forecast					Actual	Forecast	
	4Q'88	1Q'89	2Q'89	3Q'89	4Q'89	1Q'90	1988	1989	1990
Annualized % growth rates	Quarterly data						Annual data		
Real GNP	2.4	5.5	1.8	1.2	1.1	1.3	3.9	2.8	1.5
Industrial production	4.1	3.2	2.0	1.6	0.8	1.1	5.7	3.3	1.5
GNP deflator	5.3	3.9	4.8	4.6	4.4	4.5	3.4	4.7	4.5
Consumer price index	4.4	5.4	5.6	4.9	4.9	4.7	4.1	5.0	4.8
Producer price index	3.0	9.1	5.8	4.6	4.0	4.4	2.5	5.6	4.3
Real disposable income	4.1	7.7	0.8	1.6	1.4	1.5	3.8	3.3	1.5
Corp. pretax profits	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	5.8	2.7	0.6
Housing Starts	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	–8.6	–4.0	2.1
Net exports	–12.2	9.3	4.6	3.4	3.6	4.6	22.3	10.6	16.1
Ave. % rate for period									
Unemployment rate	5.3	5.2	5.2	5.3	5.4	5.6	5.5	5.3	5.7
3-mo.Treas. bill rate	7.7	8.5	8.7	8.5	8.2	7.9	6.7	8.5	7.5
AAA corp. bond rate	9.7	9.7	9.9	9.7	9.6	9.4	9.7	9.7	9.2

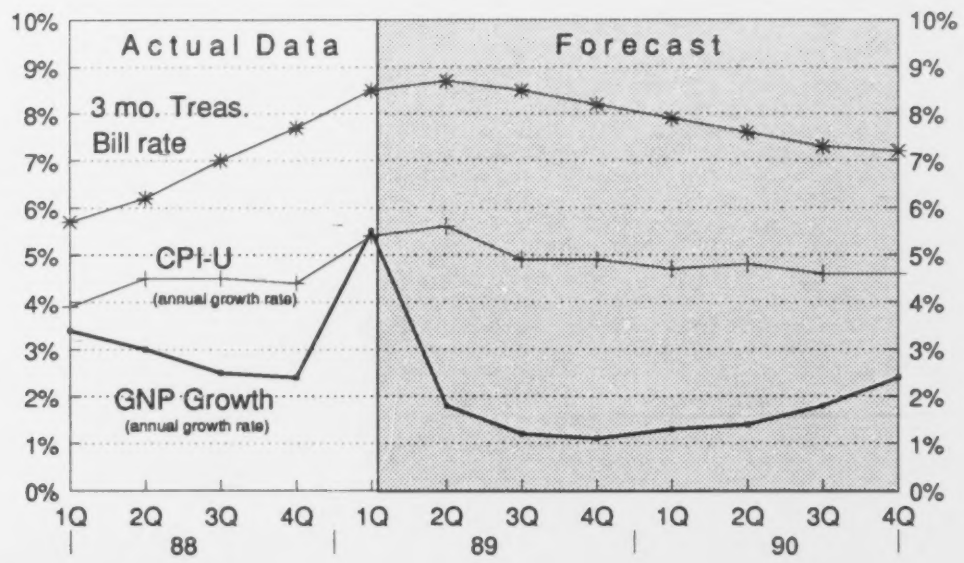
n.a.: not available

Source: Blue Chip Economic Indicators, May 10, 1989

Figure 1-1

KEY U.S. ECONOMIC PROJECTIONS TO 1990

(Percent)



Source: Eggert Economic Enterprises, Inc.
Blue Chip Economic Indicators,
May 10, 1989

2. The Honolulu Consumer Price Index, 1988

This report contains a brief description of the consumer price index, both for the nation as a whole and Honolulu, and includes tables summarizing long-term and recent trends in the index and current data on the weights used in its construction. The report has been compiled in response to widespread interest and numerous requests, particularly from persons planning to use the index as a basis for wage-rate negotiations, rent adjustments, and similar applications.

General Description

The Consumer Price Index (CPI) is a measure of the average change in prices over time in a fixed market basket of goods and services. The U.S. Bureau of Labor Statistics publishes CPI's for two population groups: (1) a CPI for All Urban Consumers (CPI-U) which covers approximately 80 percent of the total population and (2), a CPI for Urban Wage Earners and Clerical Workers (CPI-W) which covers 32 percent of the total population. The CPI-U includes, in addition to wage earners and clerical workers, groups such as professional, managerial, and technical workers, the self-employed, short-term workers, the unemployed, and retirees and others not in the labor force.

The CPI is based on prices of food, clothing, shelter, and fuels, transportation fares, charges for doctors' and dentists' services, drugs, and the other goods and services that people buy for day-to-day living. Prices are collected in 85 urban areas across the country from about 57,000 housing units and approximately 19,000 retail establishments—department stores, supermarkets, hospitals, filling stations, and other types of stores and service establishments. All taxes directly associated with the purchase and use of items are included in the index. Prices of food, fuels, and a few other items are obtained every month in all 85 locations. Prices of most other commodities and services are collected every month in other areas. Prices of most goods and services are obtained by personal visits of the Bureau's trained representatives. Some data, such as used car prices, are obtained from secondary sources.

In calculating the index, price changes for the various items in each location are averaged together with weights which represent their importance in the spending of the appropriate population group. Local data are then combined to obtain a U.S. city average. Separate indexes are also published by size of city, by region of the country, for cross calculations of regions and population-size classes, and for 28 local areas, including Honolulu. Area indexes do not measure differences in the level of prices among cities, they only measure the average change in prices for each area since the base period.

The indexes measure price change from a designated reference date, 1982-84, which equals 100.0. An increase of 7 percent, for example, is shown as 107.0. This change can also be expressed in dollars as follows: The price of a base period "market basket" of goods and services in the CPI has risen from $100 in 1982-84 to $107.

Nationally, the U.S. Bureau of Labor Statistics (BLS) began publication of the CPI in 1919. Based on official records, the index was extended back to 1913, and, using unofficial data, all the way to 1800. Major revisions in the index have occurred several times over the years, using updated weights from periodic surveys of consumer expenditures and incorporating various methodological refinements.

As noted earlier, the CPI does not reflect differences in absolute price levels among geographic areas. The fact that the all-city U.S. index for 1988 was somewhat lower than the corresponding Honolulu index does not necessarily indicate lower living costs on the Mainland; rather, it merely shows that prices have increased more slowly since the base period elsewhere in the nation. To compare absolute differences in prices between Honolulu and other localities, data users must resort to other studies. Such comparisons are cited in the *State of Hawaii Data Book 1988*, tables 434-439.

The consumer price index (either CPI-U or CPI-W) should not be confused with other available price indexes, such as the producer price index, the implicit price deflator for gross state (or national) product, and various specialized indexes. The producer price index, formerly called the wholesale price index, is designed to measure average changes in prices received by producers of all commodities, at all stages of processing, produced in a geographic area. It is not available for Hawaii. National data appear in a monthly and annual BLS publication, *Producer Price Indexes*, and also in the *Statistical Abstract of the United States*. The implicit price deflator for expeditures on gross state product (GSP) is used to convert current-dollar estimates of GSP and its various components into constant-dollar equivalents, thus removing the effects of shifting prices. It differs from the CPI in its use of a continuously updated (rather than fixed-weight) market basket of goods and services. Implicit price deflators applicable to Hawaii are reported in a forthcoming DBED report, *Hawaii Gross State Product Accounts: 1958-1985*, pp 20-21. There are also a number of special-purpose price indexes, such as the Honolulu Construction Cost Index calculated by the First Hawaiian Bank.

For further details regarding the CPI, see *BLS Handbook of Methods*, BLS Bulletin 2285, April 1988, and *The Consumer Price Index: 1987 Revision*, BLS Report 736, January 1987.

Calculating Index Changes

Movements of the indexes from one month to another are usually expressed as percent changes rather than changes in index points, because index point changes are affected by the level of the index in relation to its base period while percent changes are not. The example in the accompanying box illustrates the computation of index point and percent changes.

Index Point Change

CPI	112.5
Less previous index	108.5
Equals index point change	4.0

Percent Change

Index point difference	4.0
Divided by the previous index	108.5
Equals	0.037
Results multiplied by 100	0.037 x 100
Equals percent change	3.7

The Honolulu CPI

Consumer price indexes for Honolulu are available back to 1940, but the comparability of the data before 1963 is limited. The local index was officially established in 1943, and it has unofficially been carried back to 1940. Geographic coverage, components, and weights of the 1940-1963 index differed significantly from the index now in use.

The present CPI-W was first compiled by BLS for Honolulu in December 1963. Initially it appeared on a quarterly (later bimonthly) basis, but in 1987 it was cut back to a semi-annual schedule. Except for the incorporation of revised weights, a shift in the base period from 1963 to

1967 and then 1982-84, and a major change in the treatment of homeownership costs, the CPI-W has remained more or less comparable to the index first published more than 25 years ago.

The CPI-U, with its much broader population coverage, was not reported for Honolulu until February 1978, when its was linked to the December 1977 CPI-W. This linkage permits data users to compute percentage changes in prices, for either index, for any two dates between December 1963 and the present. Such calculated changes are however less precise for the CPI-U than for the CPI-W, since the indexes prior to 1978 reflect the buying patterns of only moderate income families.

It should be noted that both indexes apply only to consumers in the urban parts of the Honolulu Metropolitan Statistical Area (MSA) and thus excludes not only all of the Neighbor Islands but also the smaller communities in Koolauloa, Waialua, and Waianae Districts on Oahu.

Current indexes, both national and for individual cities (including Honolulu), appear in a monthly BLS publication, *CPI Detailed Report*, and also in BLS press releases. Recent indexes for the U.S. and Honolulu are also announced through the CPI Hotline (541-2808) and the Department of Business and Economic Development electronic bulletin board. The latter can be accessed via computer at 946-5191.

Historical data on the Honolulu CPI back to 1940 appear in DPED Statistical Report 187, *The Honolulu Consumer Price Index, 1940-1986* (May 30, 1986) and *The State of Hawaii Data Book 1988*, tables 429-430.

Recent Trends

During the last half of 1988, the CPI-U averaged 123.4 for Honolulu and 119.7 for the entire United States. The CPI-W stood at 124.5 locally and 118.4 nationally. Honolulu prices, whether measured by the CPI-U or CPI-W, have thus increased faster than those on the Mainland since the 1982-1984 base period. Moreover, the CPI-W in Honolulu rose more rapidly than the CPI-U, a reversal of the situation nationally. This indicates that the impact of inflation was felt more by moderate and lower-income Islanders than by the total urban population.

Over the past decade, the all-items CPI-U has increased 81.4 percent for the United States and 81.9 percent in Honolulu. Much of this rise in prices occurred in the late 1970s and early 1980s, when double-digit inflation gripped both Hawaii and the Mainland. The annual rise peaked in 1979-1980, reaching 11.7 percent for the CPI-U for Honolulu and 13.5 percent for the nation as a whole. Since that time, annual increases have moderated significantly. The greatest stability occurred between 1985 and 1986, when the national CPI-U rose by only 1.9 percent and the Honolulu CPI-U increased by 2.4 percent. Similar trends are evident for the CPI-W.

The past two years have brought a modest resurgence in inflation. Following the low point reached in 1985-1986, the national CPI-U rose by 3.7 percent in 1986-1987 and 4.1 percent in 1987-1988. The upsurge was even more noticeable in Honolulu, with a 1986-1987 increase of 5.0 percent and, during the following year, a growth of 5.9 percent. The 1987-1988 Honolulu increase not only exceeded the national rate to a significant degree, but also outpaced all but one of the other 27 metropolitan areas tracked by BLS. Only Boston, with a one-year increase of 6.1 percent, exceeded Honolulu's 5.9. As noted earlier, the national rise was 4.1 percent.

Major components of the Honolulu CPI-U have increased at widely differing rates, and some particularly volatile segments have actually declined since the 1982-1984 base period. Food and beverages, for example, have risen at approximately the same rate as the all-items index, 20.3 percent since the base period and 5.4 percent in the past year. Food at home and food away from home have followed parallel trends, along with

alcoholic beverages. By type of food consumed at home, shifts have been more noticeable. Cereals and bakery products have gained far more than other foods at home (27.0 percent since 1982-1984), while dairy products have risen by only 6.5 percent.

Although housing costs have gone up only slightly faster than the all-items index, the rise has been quite dramatic for shelter costs and far less so for other housing components. Shelter, a combination of renters' and homeowners' costs, showed a 32.1 percent increase between 1982-84 and 1988; household furnishings and operation, meanwhile, rose only 17.3 percent, and fuel and other utilities actually declined by 12.7 percent.

Transportation, likewise a major element in the household budget, rose by 16.1 percent. Gasoline, a subcategory of the transportation index, fell by 4.7 percent.

Other components revealed similarly disparated trends. Apparel and upkeep, for example, grew only modestly, by 6.8 percent over the base period. Entertainment was 22.9 percent more costly. Medical care rose steeply, by 32.5 percent. And "other goods and services" (including personal care) reported the greatest increase of all over 1982-84, fully 37.1 percent.

When 1988 prices are compared with those for the preceding year, less dramatic shifts are evident. The one-year increases exceeded 10 percent in only one group or subgroup, meats, poultry, and fish, with a 10.4 percent growth. Among major components, 1987-1988 increases were greatest for housing (7.0 percent) and transportation (5.8) and least for entertainment and, surprisingly, medical care (both 3.6). Electricity costs actually declined 7.4 percent.

Some of these components influence the all-items index far more than others. The most important element in the Honolulu CPI-U is housing, which accounts for 41.6 percent of the weighting, followed by food and beverages (20.7 percent) and transportation (16.5 percent).

Greater detail on the Honolulu CPI appears in the accompanying tables. The first two present comparative statistics on the all-items local and national indexes, both the CPI-U and CPI-W, covering the past decade. Table 2-3 presents semi-annual Honolulu data for the last five years. Detailed data by components, 1986 through 1988, appear in table 2-4. The last table gives the weights assigned to each component index as of December 1988.

The Honolulu CPI-U and CPI-W for the first half of 1989 will be released in late August.

Table 2-1.-- CONSUMER PRICE INDEX (ALL ITEMS COMBINED), FOR THE UNITED STATES AND HONOLULU: 1978 TO 1988

[Annual averages for all items combined. 1982-1984 average = 100]

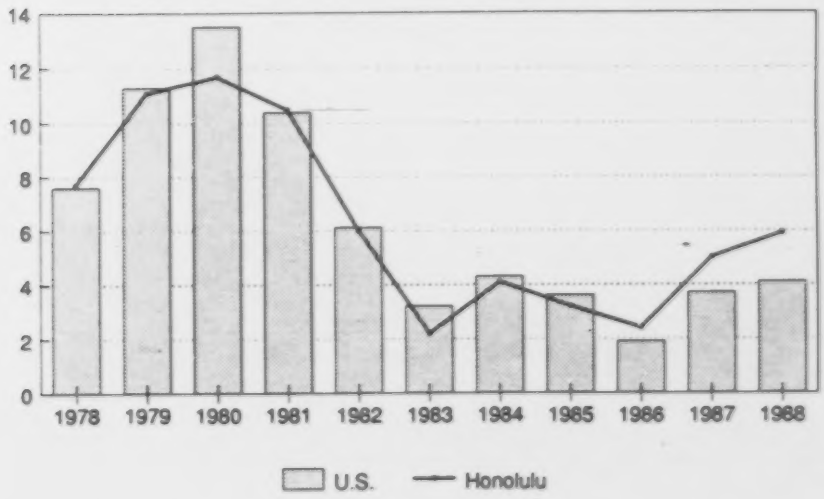
Year	All urban consumers (CPI-U)		Urban wage earners and clerical workers (CPI-W)	
	United States	Honolulu	United States	Honolulu
1978	65.2	66.9	65.6	65.9
1979	72.6	74.3	73.1	73.2
1980	82.4	83.0	82.9	81.9
1981	90.9	91.7	91.4	90.5
1982	96.5	97.2	96.9	96.0
1983	99.6	99.3	99.8	99.8
1984	103.9	103.5	103.3	104.3
1985	107.6	106.8	106.9	107.9
1986	109.6	109.4	108.6	110.3
1987	113.6	114.9	112.5	115.9
1988	118.3	121.7	117.0	122.8

Source: U.S. Bureau of Labor Statistics, *CPI Detailed Report* (monthly) and tapes.

Figure 2-1.

U.S. AND HONOLULU CPI-U: 1978 to 1988

(Annual percentage growth)



Source: Table 2-2.

Table 2-2.-- PERCENT CHANGES IN THE CONSUMER PRICE INDEX (ALL ITEMS COMBINED), FOR THE UNITED STATES AND HONOLULU: 1978 TO 1988

[Based on annual averages]

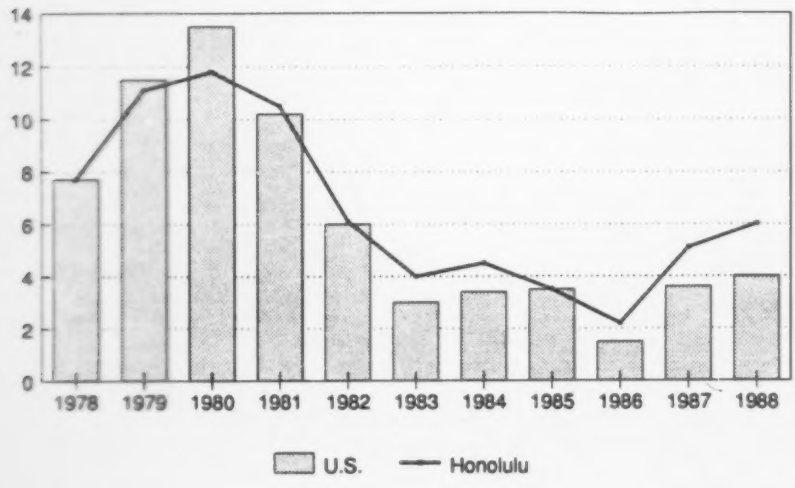
Period	All urban consumers (CPI-U)		Urban wage earners and clerical workers (CPI-W)	
	United States	Honolulu	United States	Honolulu
1978 to 1979	11.3	11.1	11.5	11.1
1979 to 1980	13.5	11.7	13.5	11.8
1980 to 1981	10.4	10.5	10.2	10.5
1981 to 1982	6.1	6.0	6.0	6.1
1982 to 1983	3.2	2.2	3.0	4.0
1983 to 1984	4.3	4.1	3.4	4.5
1984 to 1985	3.6	3.2	3.5	3.5
1985 to 1986	1.9	2.4	1.5	2.2
1986 to 1987	3.7	5.0	3.6	5.1
1987 to 1988	4.1	5.9	4.0	6.0
1978 to 1988	81.4	81.9	78.4	86.3
1983 to 1988	18.8	22.6	17.2	23.0

Source: Calculated from table 2-1.

Figure 2-2.

U.S. AND HONOLULU CPI-W: 1978 to 1988

(Annual percentage growth)



Source: Table 2-2.

Table 2-3.-- CONSUMER PRICE INDEX (ALL ITEMS COMBINED), BY TYPE OF CONSUMER, FOR HONOLULU: SEMIANNUALLY, 1984 TO 1988

[1982-1984 average = 100]

Year	All urban consumers (CPI-U)			Urban wage earners and clerical workers (CPI-W)		
	Annual average	First half	Second half	Annual average	First half	Second half
1984	103.5	102.5	104.4	104.3	103.0	105.5
1985	106.8	106.3	107.4	107.9	107.4	108.4
1986	109.4	108.9	109.9	110.3	109.9	110.7
1987	114.9	113.3	116.5	115.9	114.3	117.6
1988	121.7	120.1	123.4	122.8	121.1	124.5

Source: U.S. Bureau of Labor Statistics, tapes tabulated by Hawaii State Data Center and press releases.

Figure 2-3.
HONOLULU SEMIANNUAL CPI: 1984 to 1988
(Percent change from previous year)

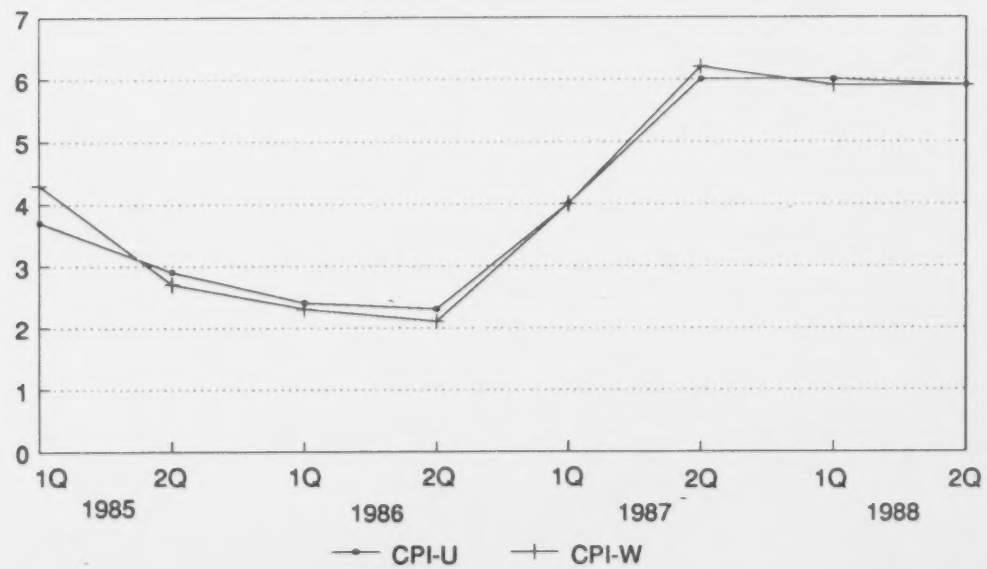


Table 2-4.-- CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS (CPI-U), BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1986 TO 1988

[Unless otherwise specified, 1982-1984 average = 100]

Group	Index			Percent change	
	1986	1987	1988	1986-87	1987-88
All items	109.4	114.9	121.7	5.0	5.9
Food and beverages	110.0	114.1	120.3	3.7	5.4
Food	109.9	114.3	120.2	4.0	5.2
Food at home	109.0	113.4	120.0	4.0	5.8
Cereals and bakery products	112.8	117.2	127.0	3.9	8.4
Meats, poultry, fish, and eggs	104.3	108.5	119.1	4.0	9.8
Meats, poultry, and fish	104.3	107.9	119.1	3.5	10.4
Dairy products	105.0	105.9	106.5	0.9	0.6
Fruits and vegetables	112.3	116.5	122.3	3.7	5.0
Other foods at home	113.2	119.4	122.2	5.5	2.3
Food away from home	111.4	115.6	121.0	3.8	4.7
Alcoholic beverages	111.1	111.4	121.0	0.3	8.6
Housing	108.4	115.0	123.0	6.1	7.0
Shelter	113.9	122.1	132.1	7.2	8.2
Renters' costs 1/	121.1	127.3	133.9	5.1	5.2
Rent, residential	116.9	122.3	129.4	4.6	5.8
Other renters' costs	122.5	129.7	131.7	5.9	1.5
Homeowners' costs 1/	115.7	124.9	136.5	8.0	9.3
Owners' equivalent rent 1/	115.8	125.0	136.8	7.9	9.4
Fuel and other utilities	87.6	88.8	87.3	1.4	-1.7
Fuels	75.2	77.8	72.6	3.5	-6.7
Gas (piped) and electricity	74.9	77.4	72.1	3.3	-6.8
Electricity	73.3	76.0	70.4	3.7	-7.4
Utility (piped) gas	88.2	87.6	86.5	-0.7	-1.3
Household furnishings and operation	104.7	108.8	117.3	3.9	7.8
Apparel and upkeep	99.8	102.5	106.8	2.7	4.2
Apparel commodities	98.5	101.2	105.4	2.7	4.2
Men's and boys' apparel	106.8	114.7	121.2	7.4	5.7
Women's and girls' apparel	102.0	100.3	105.3	-1.7	5.0
Footwear	100.8	100.4	101.2	-0.4	0.8
Transportation	105.2	109.7	116.1	4.3	5.8
Private transportation	105.4	109.7	116.4	4.1	6.1
Motor fuel	88.5	90.9	95.4	2.7	5.0
Gasoline	88.5	91.0	95.3	2.8	4.7
Public transportation	103.8	109.1	112.9	5.1	3.6
Medical care	122.3	127.9	132.5	4.6	3.6

Continued on next page

Table 2-4.-- CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS (CPI-U), BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1986 TO 1988 -- Con.

Group	Index			Percent change	
	1986	1987	1988	1986-87	1987-88
Entertainment	113.2	118.6	122.9	4.8	3.6
Other goods and services	119.6	129.7	137.1	8.4	5.7
Personal care	107.3	112.6	115.8	4.9	2.8
All items	109.4	114.9	121.7	5.0	5.9
Commodities	106.2	109.6	115.5	3.2	5.4
Food and beverages	110.0	114.1	120.3	3.7	5.4
Commodities less food & beverages	103.1	106.0	111.8	2.8	5.5
Nondurables less food &beverages	102.5	105.5	110.1	2.9	4.4
Durables	104.5	107.2	114.9	2.6	7.2
Services	112.3	119.8	127.4	6.7	6.3
Medical care services	122.1	128.1	132.4	4.9	3.4
Special indexes:					
All items less shelter	107.7	112.2	117.7	4.2	4.9
All items medical care	108.6	114.1	121.0	5.1	6.0
All items less energy	112.0	116.1	125.5	5.4	6.3
Energy	82.3	84.8	84.7	3.0	-0.1
Commodities less food	103.5	106.2	112.1	2.6	5.6
Nondurables less food	103.0	105.8	110.7	2.7	4.6
Nondurables	106.6	110.2	115.7	3.4	5.0
Services less rent of shelter 1/	112.6	119.0	123.8	5.7	4.0
Services less medical care	111.2	116.8	126.6	6.8	6.6

1/ December 1982 = 100.

Source: U.S. Bureau of Labor Statistics, CPI Detail Report, January issues, 1986 to 1989.

Table 2-5.-- RELATIVE IMPORTANCE OF COMPONENTS IN THE CONSUMER PRICE INDEX FOR HONOLULU: DECEMBER 1988

[Percent of all items]

Group	CPI-U 1/	CPI-W 2/
EXPENDITURE CATEGORY		
All items	100.000	100.000
Food and beverages	20.709	21.984
Food	19.253	20.254
Food at home	12.053	12.262
Cereals and bakery products	1.693	1.934
Meats, poultry, fish, and eggs	3.928	4.245
Meats, poultry, and fish	3.670	3.919
Dairy products	.976	.920
Fruits and vegetables	2.612	2.495
Other foods at home	2.844	2.668
Food away from home	7.200	7.993
Alcoholic beverages	1.456	1.730
Housing	41.636	38.802
Shelter	30.844	28.403
Renters' costs	8.891	9.000
Rent, residential	7.722	8.198
Other renters' costs	1.169	.802
Homeowners' costs	21.754	19.217
Owners' equivalent rent	21.515	19.049
Fuel and other utilities	4.233	4.512
Fuels	1.909	2.017
Fuel oil, coal, and bottled gas	.022	.026
Fuel oil	.001	.003
Other fuels	.021	.022
Gas (piped) and electricity	1.887	1.991
Electricity	1.709	1.734
Utility (piped) gas	.178	.257
Household furnishings and operations	6.559	5.887
Apparel and upkeep	5.470	5.756
Apparel commodities	5.150	5.420
Men's and boys'	1.458	1.611
Women's and girls'	2.285	2.369
Footwear	.663	.733

Continued on next page.

Table 2-5.-- RELATIVE IMPORTANCE OF COMPONENTS IN THE CONSUMER PRICE INDEX FOR HONOLULU: DECEMBER 1988 -- Con.

Group	CPI-U 1/	CPI-W 2/
EXPENDITURE CATEGORY -- Con.		
Transportation	16.533	18.548
Private	14.699	17.135
Motor fuel	2.957	3.594
Public	1.833	1.413
Medical care	5.041	4.749
Entertainment	4.604	4.435
Other goods and services	6.008	5.725
Personal care	1.240	1.349
COMMODITY AND SERVICE GROUP		
All items	100.000	100.000
Commodities	43.889	47.515
Food and beverages	20.709	21.984
Commodities less food and beverages	23.180	25.531
Nondurable less food and beverages	14.131	15.368
Durables	9.049	10.163
Services	56.111	52.485
Medical care service	4.115	3.800
Special indexes:		
All items less shelter	69.156	71.597
All items less medical care	94.959	95.251
All items less energy	95.135	94.389
Energy	4.865	5.611
Commodities less food	24.636	27.261
Nondurables less food	15.587	17.098
Nondurables	34.840	37.352
Services less rent of shelter	25.720	24.451
Services less medical care	51.995	48.685

1/ Consumer price index for all urban consumers.
2/ Consumer price index for urban wage earners and clerical workers.
Source: U.S. Bureau of Labor Statistics, printout.

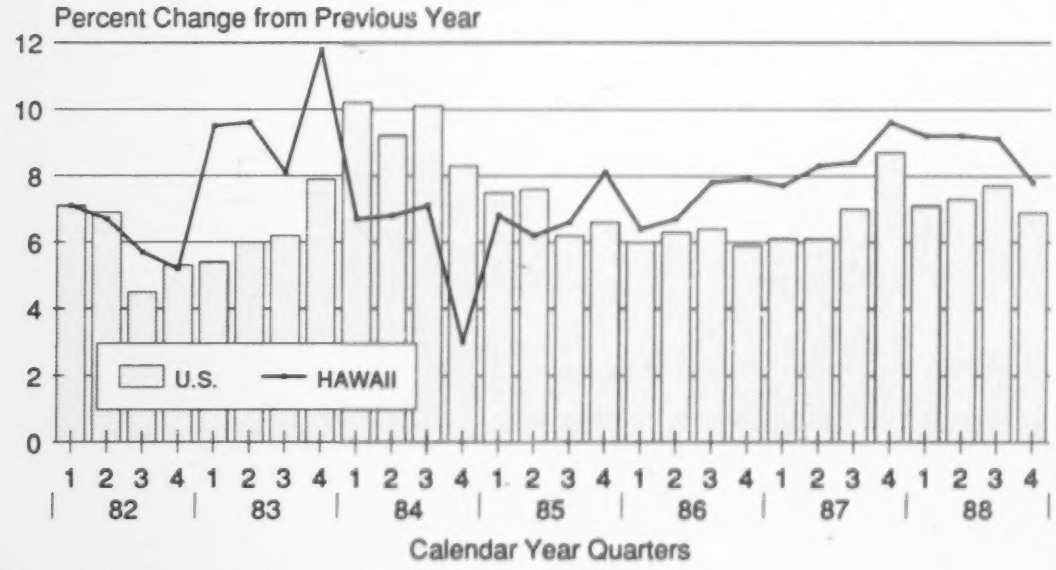
3. Personal Income

The strength of Hawaii's economic growth is reflected in the personal income data recently released by the U.S. Department of Commerce, Bureau of Economic Analysis. In 1988, total personal income for Hawaii, which includes total earnings and income from dividends, interest, rent, and transfer payments, was $18.5 billion, an 8.8 percent increase from 1987. Total personal income for the nation rose 7.3 percent in the same period.

Per capita personal income was estimated to be $16,898 for the State in 1988, a 7.7 percent increase over 1987 and 3 percent higher than the national average of $16,444. During the same period, consumer prices in Honolulu, measured by the Consumer Price Index (CPI-U), increased 5.9 percent. Hawaii per capita income ranked 13th highest in the nation, and the 1987 to 1988 growth rate was the 4th highest of the 50 states.

Figure 3-1

GROWTH IN PERSONAL INCOME: U.S. AND HAWAII



SOURCE: DBED, Based on data from the Dept of Commerce, Bureau of Economic Analysis

Table 3-1
TOTAL PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1988

[Dollar amounts in millions]

Year	Total personal income 1/		Percent change from same period in previous year	
	United States	Hawaii	United States	Hawaii
1980	2,254,076	10,279	11.1	13.8
1981	2,514,231	11,051	11.5	7.5
1982	2,663,432	11,732	5.9	6.2
1983	2,834,385	12,875	6.4	9.7
1984	3,101,163	13,628	9.4	5.8
1985	3,317,545	14,589	7.0	7.1
1986	3,522,203	15,639	6.2	7.2
1987	3,768,696	16,970	7.0	8.5
1988	4,042,110	18,466	7.3	8.8
1986:				
1 Q	3,452,122	15,215	6.0	6.4
2 Q	3,508,300	15,444	6.3	6.7
3 Q	3,537,997	15,785	6.4	7.8
4 Q	3,590,393	16,112	5.9	7.9
1987:				
1 Q	3,664,374	16,386	6.1	7.7
2 Q	3,722,315	16,723	6.1	8.3
3 Q	3,786,079	17,110	7.0	8.4
4 Q	3,902,016	17,662	8.7	9.6
1988:				
1 Q	3,922,767	17,893	7.1	9.2
2 Q	3,995,275	18,264	7.3	9.2
3 Q	4,077,502	18,660	7.7	9.1
4 Q	4,172,895	19,045	6.9	7.8

1/ Quarterly income seasonally adjusted at annual rates.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, release dated April 1989.

Table 3-2
TOTAL AND PER CAPITA PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1988

Year	Total personal income (millions of dollars)		Per capita personal income (dollars)		Hawaii per capita income as a percentage of U.S.
	United States	Hawaii	United States	Hawaii	
1980	2,254,076	10,279	9,919	10,617	107
1981	2,514,231	11,051	10,949	11,274	103
1982	2,663,432	11,732	11,481	11,760	102
1983	2,834,385	12,875	12,098	12,640	104
1984	3,101,163	13,628	13,114	13,155	100
1985	3,317,545	14,589	13,896	13,891	100
1986	3,522,203	15,639	14,608	14,702	101
1987	3,768,696	16,970	15,482	15,683	101
1988	4,042,110	18,466	16,444	16,898	103
	Percent change from previous year				
1980	11.1	13.8	9.8	11.7	1.7
1981	11.5	7.5	10.4	6.2	-3.8
1982	5.9	6.2	4.8	4.3	-0.5
1983	6.4	9.7	5.4	7.5	2.0
1984	9.4	5.8	8.4	4.1	-4.0
1985	7.0	7.1	6.0	5.6	-0.3
1986	6.2	7.2	5.1	5.8	0.7
1987	7.0	8.5	6.0	6.7	0.7
1988	7.3	8.8	6.2	7.7	1.4

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Electronic Data Distribution System release, April 1989.

Table 3-3
PERSONAL INCOME BY MAJOR SOURCES: 1986 TO 1988

[In millions of dollars and percent]

Item	1986	1987	1988	Growth rate from previous period	
				1986-87	1987-88
By type:					
Wage and salary disbursements	9,782	10,673	11,706	9.1	9.7
Other labor income	842	942	1,016	11.9	7.9
Proprietors income	1,219	1,303	1,404	6.9	7.8
Farm	146	140	147	-3.8	4.6
Nonfarm	1,073	1,163	1,257	8.3	8.1
By industry:					
Farm	298	302	317	1.4	5.0
Nonfarm	11,544	12,615	13,808	9.3	9.5
Private	8,018	8,948	9,929	11.6	11.0
Agriculture, forestry, fish	57	67	77	16.6	15.7
Construction	781	917	1,030	17.3	12.4
Manufacturing	543	568	604	4.6	6.4
Transp., comm., utilities	985	1,107	1,203	12.4	8.6
Wholesale trade	464	503	542	8.6	7.7
Retail trade	1,332	1,502	1,685	12.8	12.2
Finance, insur., real est.	833	910	1,016	9.2	11.6
Services	3,019	3,363	3,759	11.4	11.8
Government and govt. enterpr.	3,526	3,668	3,879	4.0	5.8
Federal, civilian	950	991	1,051	4.2	6.1
Federal military	1,299	1,326	1,355	2.0	2.2
State and local	1,277	1,351	1,474	5.9	9.0
Derivation of personal income:					
Total earnings	11,842	12,917	14,125	9.1	9.3
Less: Personal contributions for social insurance	717	778	901	8.6	15.7
Net earnings	11,125	12,139	13,225	9.1	8.9
Plus: Dividends, interest, and rent	2,319	2,506	2,746	8.1	9.5
Plus: Transfer payments	2,195	2,326	2,495	5.9	7.3
Personal income	15,639	16,970	18,466	8.5	8.8

Source: U.S. Department of Commerce, Bureau of Economic Analysis, release dated April 1989.

Table 3-4
TOTAL AND PER CAPITA DISPOSABLE PERSONAL INCOME FOR THE UNITED STATES AND HAWAII: 1980 TO 1988

Year	Disposable personal income (millions of dollars)		Per capita personal income (dollars)		Hawaii per capita income as a percentage of U.S.
	United States	Hawaii	United States	Hawaii	
1980	1,914,331	8,776	8,424	9,065	108
1981	2,121,830	9,418	9,240	9,608	104
1982	2,255,123	10,213	9,721	10,238	105
1983	2,424,880	11,100	10,350	10,897	105
1984	2,662,051	11,886	11,257	11,474	102
1985	2,832,081	12,606	11,863	12,003	101
1986	3,011,946	13,510	12,492	12,701	102
1987	3,199,658	14,569	13,145	13,464	102
1988	3,453,097	15,882	14,048	14,534	103
	Percent change from previous year				
1980	11.0	13.8	9.7	11.7	1.8
1981	10.8	7.3	9.7	6.0	-3.4
1982	6.3	8.4	5.2	6.6	1.3
1983	7.5	8.7	6.5	6.4	0.0
1984	9.8	7.1	8.8	5.3	-3.2
1985	6.4	6.1	5.4	4.6	-0.7
1986	6.4	7.2	5.3	5.8	0.5
1987	6.2	7.8	5.2	6.0	0.7
1988	7.9	9.0	6.9	7.9	1.0

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Electronic Data Distribution System release, April 1989.

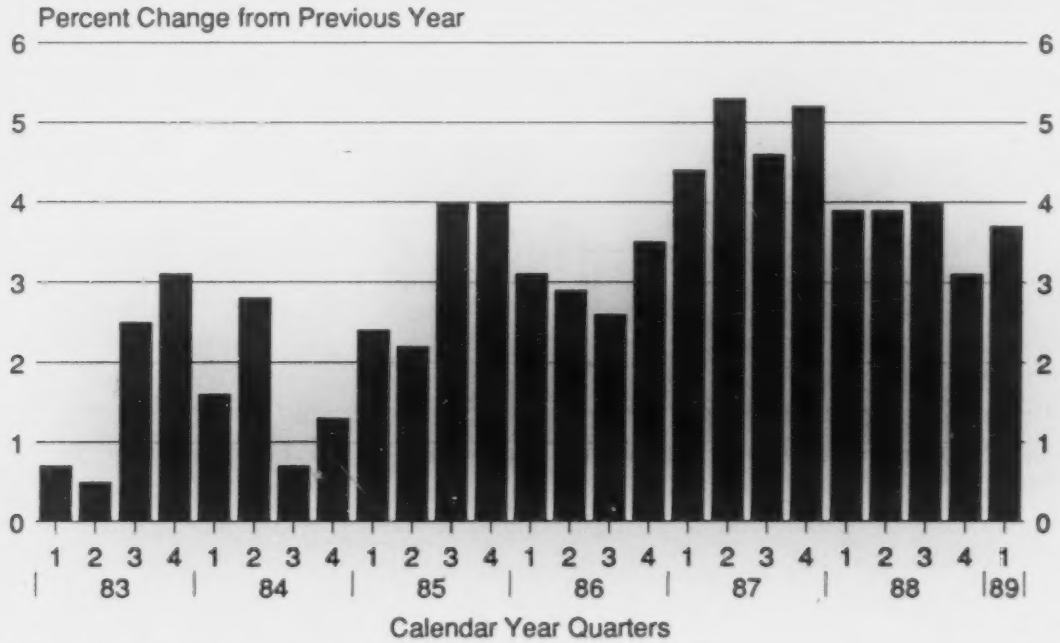
4. Employment

Revised employment data on the number of jobs in 1988 show that the State experienced healthy gains in jobs but at slightly lower rate than the 1986 to 1987 period. Total nonagricultural wage and salary jobs increased 3.7 percent in 1988 to 477,100 compared with the 4.9 percent increase the previous year. Agricultural wage and salary jobs dropped to 9,200 as employment in diversified agriculture which showed strong gains in the 1986 to 1987 period, declined 5 percent in 1988.

Preliminary estimates of job counts for the first two months of 1989 indicated continued gains but at a slower rate than previous years. Despite the 3.8 percent growth of nonagricultural wage and salary jobs, agricultural jobs showed continued declines. The preliminary estimates are based on a survey of employers and will be revised lated next year based on a more complete count from all employers covered under the Hawaii Employment Security Law.

Figure 4-1

GROWTH IN NONAGRICULTURAL JOBS



SOURCE: DBED, Based on data from the Dept. of Labor and Industrial Relations

Table 4-1
CIVILIAN LABOR FORCE AND EMPLOYMENT, BY COUNTY: 1980 TO 1989

[Number of persons]

Subject and year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Civilian labor force:					
1980	439,000	338,350	44,550	19,550	37,550
1981	451,000	345,700	46,550	20,100	39,800
1982	461,000	350,100	48,300	20,850	42,900
1983	472,000	357,100	48,400	21,650	44,850
1984	472,000	357,100	49,750	21,300	44,950
1985	479,000	359,600	50,700	22,050	46,950
1986	492,000	368,700	51,350	23,400	48,600
1987	513,000	382,300	53,700	25,000	52,000
1988	516,000	382,600	54,700	26,200	52,550
1988: 1 Q	516,500	383,950	53,350	25,950	53,250
2 Q	516,200	383,750	53,700	26,100	52,650
3 Q	515,650	381,400	55,150	26,450	52,600
4 Q	515,700	381,200	56,500	26,350	51,650
1989: Jan-Feb	514,700	379,400	56,550	26,700	52,100
Civilian employment:					
1980	418,000	322,800	40,850	18,700	35,650
1981	427,000	328,500	42,150	18,900	37,450
1982	430,000	328,600	42,700	19,150	39,600
1983	442,000	338,950	44,050	20,000	41,450
1984	445,000	337,950	44,900	19,800	42,250
1985	452,000	348,050	46,150	20,550	44,150
1986	468,000	352,850	47,500	22,000	46,050
1987	493,000	368,700	50,750	23,850	49,650
1988	500,000	372,000	51,950	25,250	50,800
1988: 1 Q	502,200	374,300	51,250	25,100	51,600
2 Q	498,950	372,300	50,750	25,000	50,850
3 Q	498,950	370,550	52,150	25,400	50,850
4 Q	499,900	370,900	53,700	25,400	49,900
1989: Jan-Feb	497,100	368,000	53,500	25,400	50,150

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-2
CIVILIAN UNEMPLOYED AND UNEMPLOYMENT RATE, BY COUNTY: 1980 TO 1989

Subject and year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Civilian unemployed (persons):					
1980	21,000	15,550	2,700	850	1,900
1981	24,000	17,150	3,300	1,150	2,350
1982	31,000	21,500	4,500	1,700	3,300
1983	30,000	20,600	4,300	1,650	3,400
1984	27,000	19,100	3,750	1,500	2,700
1985	27,000	18,450	4,250	1,500	2,800
1986	24,000	16,200	3,850	1,400	2,550
1987	20,000	13,600	2,950	1,150	2,300
1988	16,000	10,600	2,700	950	1,750
1988: 1 Q	14,250	9,650	2,100	800	1,700
2 Q	17,250	11,450	2,950	1,100	1,800
3 Q	16,650	10,850	3,000	1,050	1,750
4 Q	15,800	10,300	2,800	900	1,750
1989: Jan-Feb	17,650	11,450	3,050	1,250	1,950
Unemployment rate (percent):					
1980	4.9	4.6	6.2	4.2	5.1
1981	5.4	5.0	7.3	5.8	5.9
1982	6.7	6.1	9.6	8.1	7.7
1983	6.5	5.8	8.9	7.7	7.6
1984	5.6	5.4	7.6	7.0	6.0
1985	5.6	5.1	8.5	6.7	5.9
1986	4.8	4.4	7.5	5.9	5.3
1987	3.8	3.5	5.5	4.6	4.5
1988	3.2	2.8	4.9	3.7	3.3
1988: 1 Q	2.8	2.5	4.0	3.2	3.1
2 Q	3.3	3.0	5.5	4.1	3.4
3 Q	3.2	2.9	5.4	3.9	3.3
4 Q	3.1	2.7	4.9	3.5	3.4
1989: Jan-Feb	3.4	3.0	5.4	4.6	3.7

Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-3
TOTAL JOBS: 1980 TO 1989

Year	Total jobs 1/	Nonagriculture			Agriculture			Labor disputes
		Total	Wage & salary	Self-employed	Total	Wage & salary	Self-employed	
1980	448,150	432,400	404,100	28,300	15,400	10,800	4,600	500
1981	449,900	433,950	404,800	29,150	15,850	11,500	4,350	50
1982	446,050	430,700	399,400	31,300	15,250	11,300	4,000	100
1983	453,750	438,500	406,200	32,300	15,100	11,200	3,900	150
1984	461,000	446,100	412,650	33,450	14,450	10,800	3,650	450
1985	473,150	459,150	425,750	33,400	13,900	10,400	3,500	100
1986	486,850	473,300	438,550	34,750	13,350	10,150	3,200	200
1987 (r) 2/	504,950	490,700	459,950	30,700	14,220	10,550	3,700	50
1988 (r)	523,500	509,800	477,100	32,750	13,550	10,000	3,600	100
1988 (r):								
1 Q	513,450	500,200	469,700	30,550	13,200	9,750	3,450	50
2 Q	524,700	511,500	477,100	34,400	13,150	9,700	3,450	50
3 Q	524,700	510,450	476,550	33,900	14,150	10,500	3,650	100
4 Q	531,000	517,100	484,950	32,150	13,750	9,950	3,750	150
1989 (p) Jan-Feb	528,250	515,800	485,250	30,600	12,450	9,200	3,250	-
	Percent change from the same period in previous year							
1980	3.2	3.4	2.6	16.2	1.1	0.5	2.2	-28.6
1981	0.3	0.4	0.2	3.0	2.9	8.4	-5.4	-90.0
1982	-0.9	-0.7	-1.3	7.4	-3.8	-2.2	-9.2	100.0
1983	1.7	1.8	1.7	3.2	-1.3	-0.9	-1.3	50.0
1984	1.6	1.7	1.6	3.6	-4.0	-3.6	-6.4	200.0
1985	2.6	2.9	3.2	-0.2	-3.8	-3.5	-4.4	-77.8
1986	2.9	3.1	3.0	4.0	-4.0	-2.4	-8.6	85.7
1987 (r)	(NC)	(NC)	4.9	(NC)	6.5	3.9	15.3	-75.0
1988 (r)	3.7	3.9	3.7	6.7	-4.7	-5.3	-2.7	69.2
1988 (r):								
1 Q	4.4	4.6	3.9	16.2	-1.2	-2.7	3.0	0.0
2 Q	4.1	4.4	3.9	11.7	-7.0	-7.3	-5.5	0.0
3 Q	3.3	3.6	4.0	-0.6	-8.1	-7.1	-11.0	75.0
4 Q	2.9	3.0	3.1	1.5	-1.7	-3.9	4.1	200.0
1989 (p) Jan-Feb	3.3	3.6	3.8	0.6	-6.7	-6.8	-7.2	-

r Revised.
p Preliminary.
NC Not comparable.
1/ Total of wage and salary jobs and self-employed in agricultural and nonagricultural industries plus those jobs involved in labor disputes.
2/ Revision in methodology affecting non-agricultural self-employed from 1987. Data and subtotals not comparable to previous years.
Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-4
NUMBER OF JOBS, BY INDUSTRY: 1987 TO 1989

Series	1987	1988 (r)	Jan-Feb 1989 (p)	Percent change from previous year		
				1987	1988	1989
Total jobs 1/	504,950	523,500	528,250	(NC)	3.7	3.3
Non-agricultural wage and salary jobs	459,950	477,100	485,250	4.9	3.7	3.8
Construction	21,200	23,050	24,800	13.8	8.8	16.0
Manufacturing	21,900	22,300	22,400	-0.6	1.8	1.7
Durable goods	3,950	4,250	4,350	4.9	8.0	1.8
Nondurable goods	17,950	18,050	18,000	-1.8	0.6	-0.1
Food processing	9,950	10,300	10,350	-1.9	3.5	4.0
Sugar processing	3,050	2,950	2,900	-8.0	-3.5	-6.5
Pineapple processing	2,050	2,050	1,900	3.6	0.2	-8.1
Other food processing	4,800	5,300	5,600	-0.1	9.9	14.4
Transp. commun., utilities	36,850	38,000	38,950	7.7	3.2	3.7
Trade	123,750	127,600	128,300	4.9	3.1	2.8
Wholesale	20,400	20,550	20,700	4.2	0.8	3.0
Retail	103,400	107,050	107,650	5.0	3.6	2.8
Finance, insur., real estate	33,700	34,750	35,200	1.7	3.1	3.2
Services	126,500	132,250	135,450	6.6	4.5	4.5
Hotels	31,250	34,500	37,000	6.8	10.4	10.1
Government	96,050	99,100	100,250	2.3	3.2	2.1
Federal	32,800	33,450	33,400	2.2	2.0	0.1
State	49,900	51,850	53,300	2.6	3.9	3.5
Local	13,400	13,850	13,600	2.1	3.3	1.7
Agriculture (wage & salary)	10,550	10,000	9,200	3.9	-5.3	-6.8
Sugar	3,800	3,700	3,450	-4.7	-3.0	-6.8
Pineapple	1,900	1,750	1,500	-6.9	-8.8	-9.1
Diversified agriculture	4,800	4,550	4,300	17.7	-5.3	-6.0
Nonagric. self-employed 2/	30,700	32,750	30,600	(NC)	6.6	0.6
Agricultural self-employed 2/	3,700	3,600	3,250	15.3	-2.7	-7.2
Labor disputes	50	100	-	-75.0	69.2	-

r Revised.
p Preliminary.
NC Not comparable. Revision in methodology affecting non-agricultural self-employed from 1987. Data and subtotals not comparable to previous years.
1/ Total of nonagricultural and agricultural wage and salary, self-employed, and jobs involved in labor disputes.
2/ Self-employed includes unpaid family workers and domestics.
Source: Hawaii State Department of Labor and Industrial Relations.

Table 4-5
NON-AGRICULTURAL WAGE AND SALARY JOBS, BY COUNTY: 1980 TO 1989

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
1980	404,100	333,050	28,450	15,150	27,500
1981	404,800	332,300	28,850	15,200	28,450
1982	399,400	325,700	28,700	15,150	29,900
1983	406,200	330,100	29,350	15,700	31,050
1984	412,650	334,400	30,400	15,700	32,150
1985	425,750	342,300	32,250	16,700	34,550
1986	438,550	351,450	33,150	17,900	36,050
1987 (r)	459,950	366,550	35,300	19,300	38,850
1988 (r)	477,100	377,850	37,200	21,150	40,900
1988 (r):					
1 Q	469,700	372,450	35,850	20,600	40,800
2 Q	477,100	378,600	36,500	20,950	41,050
3 Q	476,550	377,000	37,300	21,300	40,900
4 Q	484,950	383,350	39,150	21,650	40,750
1989 (p): Jan-Feb	485,250	382,300	39,650	21,900	41,450
	Percent change from same period in previous year				
1980	2.6	2.2	2.9	6.1	4.3
1981	0.2	-0.2	1.4	0.6	3.5
1982	-1.3	-2.0	-0.5	-0.6	5.0
1983	1.7	1.4	2.3	3.9	4.0
1984	1.6	1.3	3.6	0.1	3.5
1985	3.2	2.4	6.0	6.1	7.4
1986	3.0	2.7	2.9	7.2	4.4
1987 (r)	4.9	4.3	6.4	7.9	7.8
1988 (r)	3.7	3.1	5.5	9.6	5.2
1988 (r)					
1 Q	3.9	3.3	3.7	10.8	7.1
2 Q	3.9	3.3	3.8	10.5	6.8
3 Q	4.0	3.4	5.0	10.2	5.1
4 Q	3.1	2.4	9.3	7.0	1.9
1989 (p): Jan-Feb	3.8	3.1	11.0	6.7	2.2

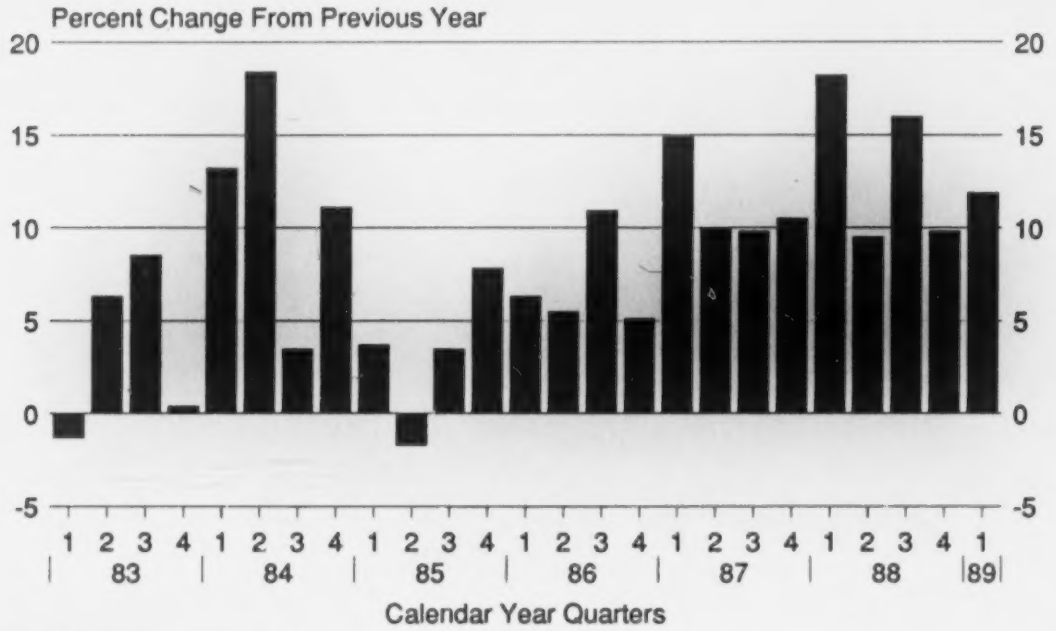
r Revised
p Preliminary.
Source: Hawaii State Department of Labor and Industrial Relations.

5. Business Activity

Business activity measured by total taxable business transactions increased nearly 12 percent for the first two months of 1989. The retailing and service sectors continued to experience double-digit growth; however, hotel rentals decreased 15 percent for the January to February period despite the nearly 15 percent increase in visitors for the same period.

Dun & Bradstreet Corporation recently reported 179 business failures in 1988—77 firms on Oahu and 102 businesses for the rest of the State (table 5-4). Over 70 percent of these firms were in the service industry. The 1988 total almost equalled the previous years total, but considerably less than the 283 failures in 1986. Although data on business starts are not yet available for 1988, data for 1987 show nearly one thousand new businesses. More than half were in the trade and service industries.

Figure 5-1
GROWTH IN TAXABLE BUSINESS TRANSACTIONS



SOURCE: Based on data from Dept of Taxation. Data for 1989 1st quarter based on January and February data.

Table 5-1
VALUE OF BUSINESS TRANSACTIONS SUBJECT TO STATE EXCISE AND USE TAX: 1980 TO 1989

[Millions of dollars]

Year	Total taxable transactions	Selected industry transactions				
		Retailing	Services	Hotel rental	Diversified agriculture	Manufacturing
1980	18,966.2	6,075.5	1,750.1	720.7	141.3	620.1
1981	20,903.8	6,690.7	1,792.1	759.4	173.3	615.9
1982	20,722.1	7,043.6	1,976.2	875.5	176.8	544.3
1983	21,416.8	7,458.8	2,128.5	858.2	221.6	502.3
1984	23,879.9	8,182.7	2,396.1	1,008.6	257.6	530.1
1985	24,630.3	8,605.2	2,529.7	1,153.4	251.6	538.3
1986	26,335.2	9,206.7	2,786.1	1,227.2	258.8	565.4
1987	29,232.3	10,010.4	3,057.4	1,434.8	264.1	588.3
1987 1/	28,072.4	9,356.7	2,856.2	1,346.5	264.1	588.3
1988	31,833.9	10,501.7	3,337.6	1,429.3	308.2	606.7
1988: 1 Q	8,349.5	2,802.6	842.5	421.5	85.2	156.0
2 Q	7,771.2	2,594.7	838.7	332.2	76.3	160.7
3 Q	8,134.6	2,694.6	825.3	358.8	71.3	145.7
4 Q	7,578.6	2,409.8	831.0	316.7	75.4	144.2
1989: Jan-Feb	6,582.2	2,261.3	655.0	263.2	60.5	134.7
	Percent change from same period in previous year					
1981	10.2	10.1	2.4	5.4	22.6	-0.7
1982	3.4	5.3	10.3	15.3	2.0	-11.6
1983	-0.9	5.9	7.7	-2.0	25.3	-7.7
1984	11.5	9.7	12.6	17.5	16.2	5.5
1985	3.1	5.2	5.6	14.4	-2.4	1.5
1986	6.9	7.0	10.1	6.4	2.9	5.0
1987	11.0	8.7	9.7	16.9	2.1	4.0
1988	13.4	12.2	16.9	6.1	16.7	3.1
1988: 1 Q	18.2	18.6	17.2	23.7	28.1	2.0
2 Q	9.5	10.9	14.0	-12.5	3.5	6.1
3 Q	16.0	13.1	14.4	12.3	15.9	-1.0
4 Q	9.8	6.1	22.0	3.1	20.9	5.5
1989: Jan-Feb	11.9	12.3	14.1	-15.0	-0.8	19.6

Note: This series derived by lagging reported excise tax base data one month to adjust for reporting delay.

1/ The Department of Taxation has revised the method of reporting the taxable base by industry. Before 1988, nonspecified industry transactions were allocated to five major tax activities--retailing, services, contracting, hotel rentals, and all other rentals. Data for 1987 show results of both methods. Percentages are based on comparable series.

Source: Hawaii State Department of Taxation.

Table 5-2
COLLECTIONS OF KEY STATE TAXES AND GENERAL FUND TAX REVENUES: 1982 TO 1989

[Thousands of dollars]

Year	General excise and use tax	Net individual income tax 1/	Net corporate income tax 2/	Tax revenues distributed to State General Fund 3/
1982	574,590	296,757	34,785	1,011,465
1983	615,536	358,072	27,960	1,109,876
1984	669,805	413,885	39,681	1,240,352
1985	707,381	446,358	44,075	1,325,791
1986	777,961	490,185	46,216	1,486,484
1987	869,039	574,729	67,272	1,731,226
1988	965,953	680,789	63,093	1,949,174
1988: 1 Q	240,506	159,295	18,135	466,092
2 Q	241,953	170,005	20,848	514,560
3 Q	241,340	168,975	16,226	483,626
4 Q	242,153	182,516	7,884	484,896
1989: 1 Q	270,801	205,047	23,553	554,240
	Percent change from same period in previous year			
1982	-0.1	-15.1	-20.2	-5.5
1983	7.1	20.7	-19.6	9.7
1984	8.8	15.6	41.9	11.8
1985	5.6	7.8	11.1	6.9
1986	10.0	9.8	4.9	12.1
1987	11.7	17.2	45.6	16.5
1988	11.2	18.5	-6.2	12.6
1988: 1 Q	11.0	18.5	32.9	16.4
2 Q	12.6	18.4	-21.6	11.4
3 Q	10.0	21.8	-9.1	12.5
4 Q	11.0	15.6	-14.1	10.5
1989: 1 Q	12.6	28.7	29.9	18.9

Note: This series represents data as reported by the Department of Taxation, without adjustment.
1/ Declaration of estimated taxes, plus payments with returns, plus withholding tax on wages, less refunds.
2/ Declaration of estimated taxes, plus payments with returns, less refunds.
3/ Excludes non-tax sources.
Source: Hawaii State Department of Taxation.

Table 5-3
DEFENSE EXPENDITURES BY SERVICE: 1980 TO 1988

[Millions of dollars]

Year or quarter	Total	Navy and Marine 1/	Army	Air Force	Coast Guard
1980	1,317.4	711.3	441.8	141.7	22.7
1981	1,449.3	770.4	493.8	158.3	26.7
1982	1,693.4	878.2	611.5	173.7	29.9
1983	1,848.2	935.9	702.7	182.6	27.0
1984	1,867.2	948.2	685.2	207.6	26.2
1985	1,965.4	955.3	780.4	201.0	28.7
1986	1,784.9	892.0	658.6	202.4	31.9
1987	1,856.9	871.5	744.3	212.4	28.7
1988: 1 Q	466.8	194.3	209.0	58.0	6.8
2 Q	469.2	194.7	209.4	56.7	8.4
3 Q	491.0	203.0	223.0	57.5	7.5
4 Q	(NA)	(NA)	215.8	52.4	(NA)
	Percent change from same period in previous year				
1980	7.8	11.0	2.8	9.6	2.7
1981	10.0	8.3	11.8	11.7	17.6
1982	16.8	14.0	23.8	9.7	12.0
1983	9.1	6.6	14.9	5.1	-9.7
1984	1.0	1.3	-2.5	13.7	-2.7
1985	5.3	0.7	13.9	-3.1	9.6
1986	-9.2	-6.6	-15.6	0.7	11.1
1987	4.0	-2.3	13.0	4.9	-10.0
1988: 1 Q	5.1	-9.4	21.4	16.5	-12.8
2 Q	3.4	-15.6	31.2	2.0	7.7
3 Q	-0.9	-10.4	5.5	12.3	21.0
4 Q	(NA)	(NA)	7.2	-5.9	(NA)

Note: Data include all appropriated expenditures for military and civilian payrolls, services, and supplies. Excludes dependent allotments, retired military pay, and non-appropriated funds for exchanges, clubs, special services, and construction.

NA Not available.

1/ Since December 1985, Navy data partly estimated due to change in reporting method and may not reflect all local purchases.

Source: Quarterly reports from armed forces, compiled by DBED.

Table 5-4
BUSINESS STARTS AND FAILURES, BY INDUSTRY SECTOR AND LOCATION: 1986 to 1988

Location and industry sector	Starts		Failures		
	1986	1987	1986	1987	1988 1/
Firms, State total	1,071	997	283	176	179
Honolulu	594	573	160	99	77
Rest of State	477	424	123	77	102
Firms, all sectors	1,071	997	283	176	179
Agriculture, forestry, fishing	31	20	5	2	2
Construction	104	83	18	16	11
Manufacturing	83	80	12	5	2
Transportation, public utilities	52	47	9	5	5
Wholesale trade	133	108	38	11	11
Retail trade	326	370	69	35	18
Finance, insurance, real estate	56	62	54	6	3
Services	285	221	78	92	126
Unclassified	1	6	-	4	1

NA Not available.
1/ Preliminary.
Source: The Dun & Bradstreet Corporation, *Business Starts Record 1986/1987* (1988), and *Business Failure Record Final 1987, and 1988 Preliminary* (1989).

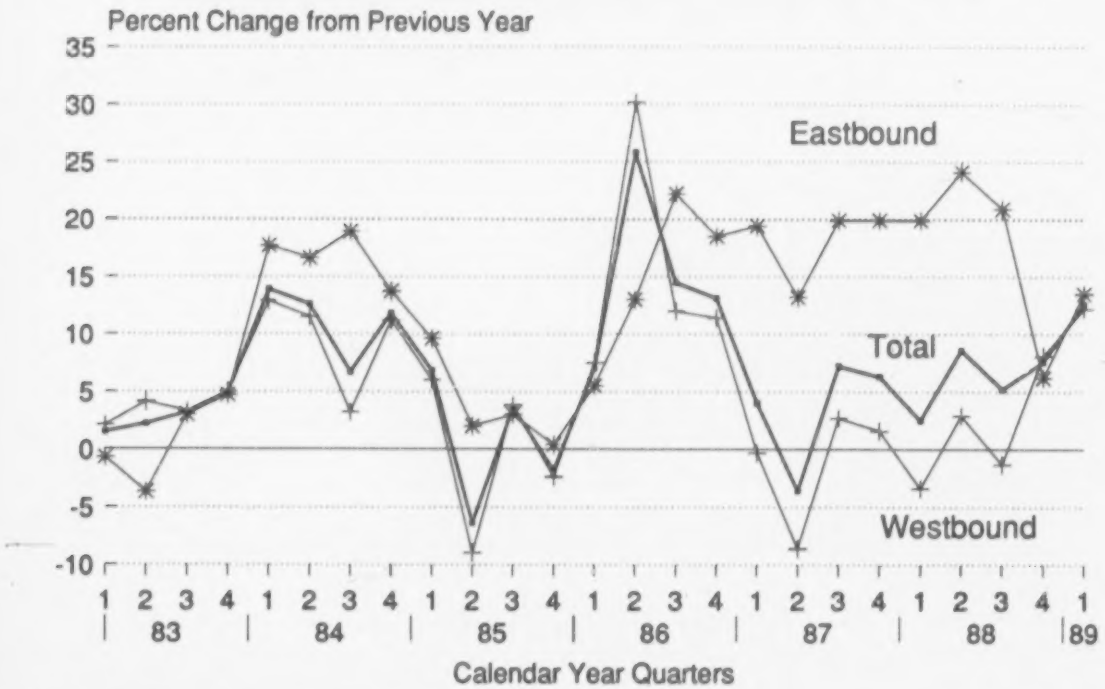
6. The Visitor Industry

The rebound in the growth of visitors arrivals from the Mainland U.S. and Canada which began in the end of 1988 continued into 1989. The westbound and eastbound sectors experienced double-digit growth in the first quarter of 1989 compared with the same period in 1988. Over 1.6 million visitors arrived in the State in the January to March period, 12.6 percent more than the same period in 1988. Economists project a 5 percent increase in visitor arrivals for 1989 to 6.5 million.

Hotel occupancy rates in 1989 increased for all islands and daily hotel room rates for the first two months of 1989 averaged over one hundred dollars—highest rates on the island of Maui ($106.04) with Oahu averaging $91.34.

Figure 6-1

GROWTH IN VISITOR ARRIVALS



SOURCE: Based on data from the HVB.

Table 6-1
VISITOR ARRIVALS AND AVERAGE DAILY VISITOR CENSUS: 1980 TO 1989

Year 1/	Visitors staying overnight or longer			Average daily visitor census	
	Total	Westbound 2/	Eastbound 3/	Westbound 2/	All
1980	3,934,504	3,046,132	888,372	86,788	96,497
1981	3,934,623	2,974,791	959,832	85,449	95,968
1982	4,242,925	3,278,525	964,400	94,740	105,310
1983	4,368,105	3,396,115	971,990	97,390	108,040
1984	4,855,580	3,721,380	1,134,200	106,260	118,660
1985	4,884,110	3,708,610	1,175,500	103,820	116,700
1986	5,606,980	4,256,390	1,350,590	118,110	132,800
1987	5,799,830	4,204,010	1,595,820	116,780	134,100
1988	6,142,420	4,264,730	1,877,690	115,760	138,910
1988: 1 Q	1,484,910	1,047,440	437,470	120,950	143,320
2 Q	1,488,200	1,028,780	459,420	109,150	131,870
3 Q	1,635,570	1,088,110	547,460	113,300	140,650
4 Q	1,533,740	1,100,400	433,340	119,560	140,530
1989: 1 Q (p)	1,672,190	1,175,500	496,690	136,870	161,700
	Percent change from corresponding period in previous year				
1980	-0.7	-3.0	8.2	-3.2	-2.2
1981	0.0	-2.3	8.0	-1.5	-0.5
1982	7.8	10.2	0.5	10.9	9.7
1983	3.0	3.6	0.8	2.8	2.6
1984	11.2	9.6	16.7	9.1	9.8
1985	0.6	-0.3	3.6	-2.3	-1.7
1986	14.8	14.8	14.9	13.9	13.8
1987	3.4	-1.2	18.2	-1.1	1.0
1988	5.9	1.4	17.7	-0.9	3.6
1988: 1 Q	2.5	-3.4	19.9	-5.4	-0.5
2 Q	8.6	2.9	24.1	1.6	6.6
3 Q	5.2	-1.3	20.9	-4.2	1.9
4 Q	7.6	8.1	6.2	5.2	6.9
1989: 1 Q (p)	12.6	12.2	13.5	13.2	12.8

p Preliminary.
1/ Beginning in 1984, sample size reduced from 20 to 10 percent and numbers rounded to the nearest 10.
2/ Arriving from the Mainland United States or Canada.
3/ Arriving from the Orient and Pacific areas.
Source: Hawaii Visitors Bureau.

Table 6-2
WESTBOUND VISITORS, BY COUNTY: 1981 TO 1989

Year 1/	City and County of Honolulu	Hawaii County	Maui County	Kauai County
1981	2,398,477	672,683	1,389,892	757,811
1982	2,589,190	678,170	1,550,080	733,295
1983	2,591,575	712,380	1,644,605	691,940
1984	2,901,320	760,940	1,854,690	814,590
1985	2,828,640	697,380	1,831,110	832,580
1986	3,146,030	786,930	2,003,870	1,014,650
1987	3,078,500	782,550	1,908,780	1,032,840
1988	3,013,860	782,360	1,884,050	1,043,710
1988: 1 Q	717,820	200,080	474,630	255,980
2 Q	733,650	175,400	464,130	254,290
3 Q	797,210	186,080	477,790	269,420
4 Q	765,180	220,800	467,500	264,020
1989: 1 Q (p)	773,360	242,790	525,680	287,250
	Percent change from corresponding period in previous year			
1982	8.0	0.8	11.5	-3.2
1983	0.1	5.0	6.1	-5.6
1984	12.0	6.8	12.8	17.7
1985	-2.5	-8.4	-1.3	2.2
1986	11.2	12.8	9.4	21.9
1987	-2.1	-0.6	-4.7	1.8
1988	-2.1	-0.0	-1.3	1.1
1988: 1 Q	-7.5	-12.2	-4.8	-2.6
2 Q	-0.7	-3.2	3.0	2.9
3 Q	-3.5	-1.1	-4.4	-3.3
4 Q	3.8	19.3	1.7	8.1
1989: 1 Q (p)	7.7	21.3	10.8	12.2

p Preliminary.
1/ Beginning in 1984, sample size changed from 20 to 10 percent
Source: Hawaii Visitors Bureau.

Table 6-3
AVERAGE DAILY HOTEL ROOM RATES, BY ISLANDS: 1970, 1980 TO 1989

[Dollars]

Year	State	Oahu	Hawaii	Maui	Kauai	Molokai
1970	25.74	(NA)	(NA)	(NA)	(NA)	(NA)
1980	47.37	42.70	46.40	61.34	55.16	(NA)
1981	49.87	43.16	47.16	73.44	56.06	(NA)
1982	51.78	44.80	47.37	75.02	58.48	(NA)
1983	55.58	47.62	50.49	81.60	59.75	(NA)
1984	59.25	49.45	57.17	88.89	65.05	(NA)
1985	65.66	57.00	65.35	96.75	69.51	(NA)
1986	72.67	61.99	73.88	115.33	71.56	56.73
1987	80.09	69.04	82.21	127.05	81.65	64.26
1988	87.94	75.66	87.15	134.26	94.04	59.06
1989 (Jan-Feb)	102.77	91.34	103.57	147.89	106.04	71.64
	Percent change from previous year					
1980	6.7	3.1	12.0	7.3	15.5	(NA)
1981	5.2	1.1	1.6	19.7	1.6	(NA)
1982	3.8	3.8	0.4	2.2	4.3	(NA)
1983	7.4	6.3	6.6	8.8	2.2	(NA)
1984	6.6	3.8	13.2	8.9	8.9	(NA)
1985	10.8	15.3	14.3	8.8	6.9	(NA)
1986	11.5	9.0	15.1	17.5	8.4	(NA)
1987	10.2	11.4	11.3	10.2	14.1	13.3
1988	9.9	9.7	6.0	5.7	15.2	-8.1
1989 (Jan-Feb)	7.8	10.7	4.2	0.5	8.4	4.5

NA Not available.
Source: Pannell Kerr Forster & Company, *Trends in the Hotel Industry, Hawaii.*

Table 6-4
HOTEL OCCUPANCY RATES BY AREA: 1986 TO 1989

[Percent; survey excludes some large hotel chains]

Date	State	Oahu	Hawaii Island	Maui Island	Kauai Island	Molokai
1986	81.2	85.2	62.2	82.7	76.7	50.3
1987	81.1	86.8	60.8	76.2	74.2	45.4
1988	78.5	85.4	56.4	73.2	67.5	45.3
1988:						
January	76.7	84.9	58.1	67.2	58.4	50.1
February	86.5	92.0	70.8	81.9	74.1	58.7
March	82.3	87.6	59.3	82.0	72.9	51.3
April	74.1	78.2	54.5	76.7	65.6	38.6
May	73.4	79.5	46.2	70.6	69.8	40.5
June	77.7	86.9	48.2	70.5	62.8	34.4
July	81.2	90.2	55.0	72.2	66.9	40.1
August	86.7	93.8	64.2	82.0	74.4	43.8
September	76.1	85.2	47.5	65.8	67.3	40.4
October	80.4	85.7	59.6	76.3	76.1	50.2
November	74.5	80.5	55.8	69.4	64.7	52.5
December	70.5	78.3	55.2	61.8	53.1	41.0
1989:						
January	82.8	92.6	61.2	68.8	66.4	56.1
February	90.0	95.2	72.2	85.1	83.8	61.8

Source: Pannell Kerr Forster & Company, *Trends in the Hotel Industry, Hawaii.*

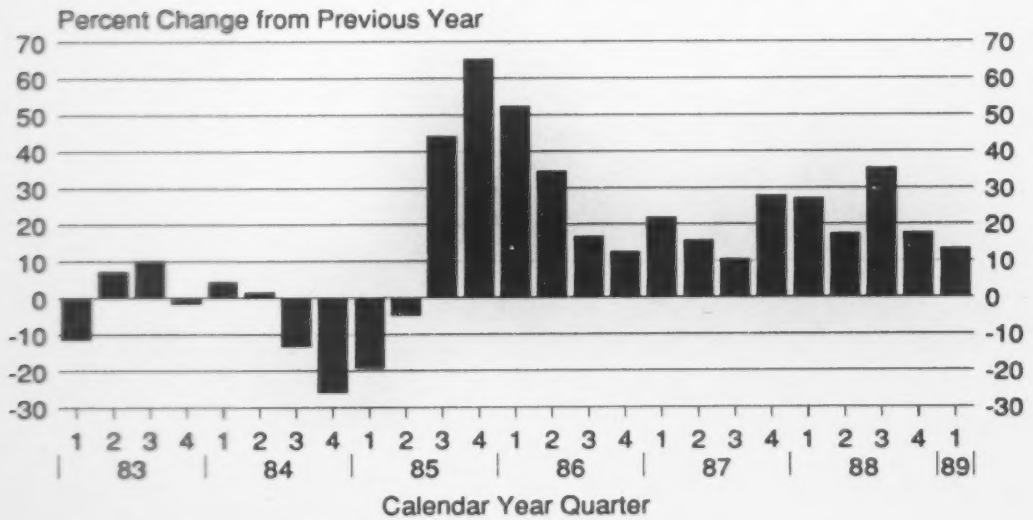
7. Construction

While rising interest rates and caution about the economic outlook are holding back building activity for the nation, the construction industry in Hawaii continued to grow with the value of construction completed increasing 13.3 percent for the first two months of the year. The value of private building permits, an indicator of future construction, jumped to $363.2 million (excluding Maui County) for the first quarter of 1989, an increase of 63.5 percent over the same period last year.

A major factor in the growth of the local industry is the construction of resort developments. Permits were issued for the Hyatt Regency Hotel($76 million) in Poipu on Kauai and the Grand Hyatt Wailea ($108 million) on Maui in December 1988 and the Mauna Lani Resort Hotel ($39.5 million) on the island of Hawaii in March 1989. Construction of the hotels as well as other commercial developments in the resorts have boosted the industry. Also contributing to the growth are large government projects located mostly on Oahu—continued construction of H-3, Honolulu International Airport facilities, and the new City and County police station.

Figure 7-1

GROWTH IN CONSTRUCTION EXPENDITURES



SOURCE: Based on data from the Dept. of Taxation. Data for 1989 1st Q based on January and February data.

Table 7-1
ESTIMATED VALUE OF COMPLETED CONSTRUCTION, NEW PRIVATE BUILDING AUTHORIZATIONS, AND GOVERNMENT CONTRACTS AWARDED: 1985 TO 1989

[Millions of dollars]

Year	Value of construction completed 1/	Private building authorizations				Government contracts awarded
		Total private authorization	Residential	Commercial and industrial 2/	Additions and alterations	
1985	1,429.6	889.0	500.1	208.8	180.1	248.5
1986	1,810.0	1,024.1	455.5	266.3	302.3	425.1
1987	2,145.5	1,161.9	507.0	344.4	310.5	372.2
1988	2,529.0	1,540.3	686.0	538.9	315.4	654.3
1988: 1 Q	590.6	317.4	135.1	112.2	70.1	124.3
2 Q	588.7	357.7	207.7	86.5	63.6	110.4
3 Q	698.1	334.1	183.1	66.4	84.6	207.1
4 Q	651.5	531.1	160.2	273.8	97.2	212.5
1989: 1 Q 3/	462.2	363.2	135.8	137.6	89.8	249.5
	Percent change from corresponding period in previous year					
1985	16.5	52.9	52.6	100.8	20.2	-39.6
1986	26.6	15.7	-10.6	32.7	68.7	71.1
1987	18.5	13.5	11.3	29.3	2.7	-12.4
1988	26.0	32.6	35.3	56.5	1.6	75.8
1988: 1 Q	27.0	27.6	10.1	54.3	31.3	27.9
2 Q	17.5	10.0	54.2	6.9	-42.0	22.1
3 Q	35.3	24.3	53.9	-1.9	3.3	65.5
4 Q	17.7	66.3	22.7	122.4	48.1	257.1
1989: 1 Q 3/	13.3	63.5	36.0	136.4	40.1	100.7

NA Not available.

1/ Value of construction subject to State excise tax, adjusted to reflect reporting delay of about one month.

2/ Includes hotels.

3/ Excludes March data for value of construction completed and 1st Q data for Maui County private building authorizations. Percent computations based on comparable periods and coverage.

Source: Hawaii State Department of Taxation; County building departments; Trade Publishing Co., *Building Industry Digest: BID Service Weekly.*

Table 7-2
ESTIMATED VALUE OF PRIVATE BUILDING CONSTRUCTION AUTHORIZATIONS, BY COUNTY: 1980 TO 1989

[Millions of dollars]

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
1980	1,219.2	686.3	146.0	133.3	253.7
1981	802.0	454.1	136.5	67.7	143.7
1982	683.1	473.0	75.2	44.2	90.7
1983	685.2	366.8	86.7	140.5	91.3
1984	581.5	378.3	90.3	53.0	59.8
1985	889.0	524.8	121.3	63.9	178.9
1986	1,024.1	545.3	231.5	93.2	154.1
1987	1,161.9	749.5	145.2	103.5	163.8
1988	1,540.3	743.1	175.0	213.7	408.5
1988 1 Q	317.4	154.1	36.8	31.2	95.2
2 Q	357.7	216.6	40.4	35.0	65.6
3 Q	334.1	193.1	53.4	26.1	61.6
4 Q	531.1	179.2	44.5	121.4	186.0
1989: 1 Q 1/	363.2	224.9	104.1	34.2	(NA)
	Percent change from corresponding period in previous year				
1980	39.4	36.9	30.1	17.1	72.0
1981	-34.2	-33.8	-6.5	-49.2	-43.4
1982	-14.8	4.2	-44.9	-34.7	-35.0
1983	0.3	-22.4	15.3	217.5	0.6
1984	-15.1	3.1	4.3	-62.3	-34.4
1985	52.9	38.7	34.3	20.5	199.0
1986	15.2	3.9	90.8	45.9	-13.9
1987	13.5	37.5	-37.3	11.0	6.3
1988	32.6	-0.9	20.5	106.5	149.4
1988 1 Q	27.6	-1.8	32.9	5.4	174.4
2 Q	10.0	-2.0	16.4	54.2	40.2
3 Q	24.3	26.0	39.4	-18.4	36.6
4 Q	66.3	-17.9	-0.2	532.3	400.0
1989 1 Q 1/	63.5	45.9	182.9	9.6	(NA)

NA Not available.

1/ Excludes Maui County building authorizations. Percent computations based on comparable periods and coverage.

Source: County building departments.

Table 7-3
ESTIMATED VALUE OF GOVERNMENT CONSTRUCTION CONTRACTS AWARDED IN HAWAII, BY AWARDING AGENCY: 1980 TO 1989

[Millions of dollars]

Year	Total	Federal	State	County
1980	230.6	66.5	120.0	44.1
1981	427.5	176.1	180.5	70.9
1982	392.7	139.6	182.0	71.2
1983	277.9	84.7	126.8	66.4
1984	411.8	130.0	196.7	85.1
1985	248.5	74.8	93.8	79.9
1986	425.1	101.9	205.4	117.8
1987	372.2	107.9	174.2	90.1
1988	654.3	170.5	351.5	132.3
1988: 1 Q	124.3	36.1	51.7	36.5
2 Q	110.4	12.6	90.4	7.4
3 Q	207.1	29.0	156.6	21.5
4 Q	212.5	92.8	52.8	66.9
1989: 1 Q	249.5	36.2	131.6	81.7
	Percent change from corresponding period in prevous year			
1980	-40.7	-37.1	-45.7	-28.8
1981	85.4	164.8	50.5	60.6
1982	-8.1	-20.7	0.8	0.4
1983	-29.3	-39.3	-30.3	-6.7
1984	48.2	53.4	55.1	28.2
1985	-39.6	-42.4	-52.3	-6.2
1986	71.1	36.2	119.1	47.4
1987	-12.4	5.9	-15.2	-49.3
1988	75.8	58.0	101.8	46.8
1988: 1 Q	27.9	97.3	-0.4	35.2
2 Q	22.1	1.6	129.4	-80.8
3 Q	65.5	-48.9	196.6	37.8
4 Q	257.1	354.9	75.4	651.7
1989: 1 Q	100.7	0.3	154.5	123.8

Source: Trade Publishing Co., *Building Industry Digest: BID Service Weekly*, and First Hawaiian Bank, Research Division.

Table 7-4
NUMBER OF SINGLE-FAMILY AND MULTI-FAMILY HOUSING UNITS AUTHORIZED BY COUNTY: 1980 TO 1989

Year	State	City & County of Honolulu	Hawaii County	Kauai County	Maui County
Single-family and duplex units:					
1980	4,058	1,645	1,204	401	808
1981	2,649	728	1,048	409	464
1982	2,285	725	800	230	530
1983	3,417	1,627	938	291	561
1984	4,442	2,513	928	361	640
1985	4,951	2,436	1,046	453	1,016
1986	4,700	2,173	1,144	438	945
1987	6,066	2,870	1,442	599	1,155
1988	6,191	2,158	1,674	702	1,657
1988: 1 Q	1,323	359	352	202	410
2 Q	1,767	722	403	188	454
3 Q	1,987	748	515	174	550
4 Q	1,114	329	404	138	243
1989: 1 Q 1/	1,181	557	483	141	(NA)
Multi-family units:					
1980	6,603	3,297	727	766	1,813
1981	3,142	1,873	270	64	935
1982	4,594	4,109	245	118	122
1983	1,341	1,220	38	73	10
1984	1,021	829	153	35	4
1985	2,450	1,807	128	84	431
1986	2,479	1,986	21	-	472
1987	1,459	785	138	-	536
1988	2,593	1,168	446	21	958
1988: 1 Q	428	162	222	-	44
2 Q	702	449	-	-	253
3 Q	528	108	224	-	196
4 Q	935	449	-	21	465
1989: 1 Q 1/	309	216	87	6	(NA)

NA Not available.
1/ Excludes Maui County building authorizations.
Source: County building departments.

Table 7-5
HONOLULU CONSTRUCTION COST INDEXES: 1983 TO 1989

[1982=100]

Year	Single-family residence			High-rise building		
	All components	Material prices	Labor 1/	All components	Material prices	Labor 1/
1983	109.5	111.3	107.3	106.9	107.4	106.9
1984	114.3	113.1	115.8	110.9	108.0	114.5
1985	117.4	115.2	120.1	113.5	108.7	118.4
1986	121.5	119.1	124.4	116.8	110.8	122.6
1987	125.7	123.7	128.2	120.7	114.9	125.8
1988	132.8	133.2	132.2	126.1	121.6	130.1
1988: 1 Q	132.8	134.2	131.0	126.3	124.3	127.9
2 Q	130.8	129.9	132.0	124.3	117.8	129.8
3 Q	132.7	132.6	132.8	125.7	119.7	130.9
4 Q	134.8	136.2	133.0	128.1	124.8	131.0
1989: Feb	138.0	137.3	139.1	132.3	126.7	137.1
	Percent change from corresponding period in previous year					
1983	9.5	11.3	7.3	6.9	7.4	6.9
1984	4.3	1.6	7.9	3.8	0.6	7.1
1985	2.7	1.9	3.7	2.4	0.6	3.4
1986	3.5	3.4	3.6	2.9	1.9	3.5
1987	3.5	3.8	3.0	3.4	3.7	2.7
1988	5.6	7.7	3.2	4.4	5.9	3.4
1988: 1 Q	7.2	11.2	2.4	5.4	10.1	1.8
2 Q	5.0	6.8	2.9	2.9	2.4	3.2
3 Q	5.1	6.2	3.5	3.7	3.4	4.1
4 Q	5.3	6.7	3.7	5.7	7.8	4.1
1989: Feb	5.0	4.3	6.0	4.8	2.2	6.9

1/ Includes wages and benefits.
Source: First Hawaiian Bank, Research Division.

8. Population

The resident population of Hawaii in mid-1988 was 1,098,200, according to estimates recently released by the U.S. Bureau of the Census. This total was 1.5 percent higher than the revised 1987 estimate and 13.8 percent above the 1980 census count.

The 1988 total included 56,800 members of the armed forces stationed or homeported in Hawaii, 69,900 military dependents, and 971,500 civilians other than military dependents.

The 1988 de facto population was around 1,213,700. This estimate refers to the total number of persons physically present in the State, regardless of their usual place of residence. It includes some 136,000 visitors present on an average day during the year but excludes approximately 21,000 residents temporarily absent on a typical day. The de facto population increased about 15.3 percent in the eight years and three months since the 1980 census.

The de facto population density of Hawaii in 1988 was 188.9 per square mile of land area or 72.9 per square kilometer. This was more than twice the corresponding nationwide density, estimated at 69.4 per square mile (26.8 per square kilometer).

The population of the Islands is still growing much more rapidly than that of the entire United States, but by a smaller margin than in the past. During the 1970s, annual growth rates (continuously compounded) were 1.1 percent nationally and 2.3 percent for the resident population of Hawaii. During the 1980-1988 period, the annual rates had fallen to 1.0 percent for the entire country and 1.6 percent for Hawaii. Hawaii ranked 39th among the 50 states and D.C. in total population in 1988 and 12th in percent increase since 1980.

The resident population of the State increased by 133,500 between April 1, 1980 and July 1, 1988. This growth was composed of 152,900 live births, 45,700 deaths, and a net in-migration of 26,400. It should be stressed that these figures include military families, who accounted for 20.9 percent of the births but only 2.0 percent of the deaths. Since most military families leave after a two- or three-year tour of duty, taking their Hawaii-born children with them, they record a large net out-migration—over 25,000, in fact, between 1980 and 1988. Excluding military personnel and their dependents, net in-migration was 51,800 or 6,300 annually. The corresponding annual average during the 1970s was 10,600. Natural increase—the excess of births over deaths—accounted for 43.5 percent of the net growth in the 1970s and 59.5 percent in the first eight years of the '80s. The share attributable to net in-migration meanwhile declined from 55.6 to 40.5 percent.

These estimates were the work of the U.S. Bureau of the Census and two agencies of the State of Hawaii, the Research and Statistics Office of the Department of Health and Research and Economic Analysis Division of the Department of Business and Economic Development. The resident totals and annual components of change were developed by the Bureau of the Census. The de facto data, together with the resident breakdowns by military status, were prepared by the two Hawaii State agencies, with the cooperation of the Research Department of the Hawaii Visitors Bureau and the U.S. armed forces in Hawaii.

The 1981-1987 figures on resident population are averages based on separate estimates by two independent procedures, the Administrative Records method (which calculates migration from a longitudinal sample of address changes reported by persons paying income taxes) and a composite

technique based largely on the Ratio-Correlation Method (utilizing a regression analysis of various symptomatic series). The 1988 estimate by the former method was 1,109,384; by the latter, 1,086,317.

The annual estimates of de facto population were based on the corresponding resident estimates, as adjusted by data on visitors present and residents absent (both expressed as annual averages) supplied by the Hawaii Visitors Bureau. The HVB figures came from its long-established sample survey of passengers entering the State.

The 1988 estimates of both resident and de facto population are preliminary and subject to revision a year hence. The 1981-1987 estimates shown here have been revised from the figures reported in earlier DBED reports.

Estimates for smaller areas—counties, islands, districts, and census tracts for 1988— are not yet available. The most recent estimates for such areas are 1985 and 1987 figures, controlled to the earlier statewide estimates, which appear in *The State of Hawaii Data Book 1988* and Statistical Report 211, *County and District Trends in Hawaii, 1988*, which contain 1987 population data.

Table 8-1
RESIDENT POPULATION, BY MILITARY STATUS: 1980 TO 1988

[Excludes visitors present but includes residents temporarily absent and armed forces stationed or homeported in Hawaii]

Date	Total resident population	Armed forces 1/	Civilian population		
			All civilians	Military dependents 2/	Not military dependents
1980: April 1	964,691	57,056	907,635	64,023	843,612
July 1	968,900	57,900	911,000	64,100	846,900
1981: July 1	980,200	56,600	923,700	64,300	859,300
1982: July 1	997,600	54,900	942,700	66,700	876,000
1983: July 1	1,018,500	55,200	963,300	66,300	897,100
1984: July 1	1,035,800	57,300	978,500	67,100	911,400
1985: July 1	1,050,100	56,400	993,700	64,300	929,400
1986: July 1	1,063,600	58,100	1,005,500	66,200	939,300
1987: July 1	1,082,000	58,100	1,023,800	64,800	959,000
1988: July 1 3/	1,098,200	56,800	1,041,400	69,900	971,500

1/ These figures are the estimates developed by the U.S. Bureau of the Census for use in population estimation. They differ somewhat from corresponding figures from other sources (see DBED, Statistical Report 207).

2/ Dependents living in Hawaii, regardless of location of family head.

3/ Provisional estimates.

Source: Federal-State Cooperative Program for Local Population Estimates.

Table 8-2
RESIDENT AND DE FACTO POPULATION, BY RESIDENCE STATUS: 1980 TO 1988

Date	Resident population 1/		De facto population 2/	
	Total	Temporarily absent 3/	Total	Visitors present 3/
1980: April 1	964,691	9,635	1,052,659	97,603
July 1	968,900	9,600	1,055,800	96,500
1981: July 1	980,200	11,600	1,064,600	96,000
1982: July 1	997,600	14,500	1,088,400	105,300
1983: July 1	1,018,500	11,500	1,115,100	108,000
1984: July 1	1,035,800	16,100	1,138,400	118,700
1985: July 1	1,050,100	18,600	1,148,300	116,700
1986: July 1	1,063,600	17,200	1,179,400	132,900
1987: July 1	1,082,000	15,700	1,200,500	134,300
1988: July 1 4/	1,098,200	20,600	1,213,700	136,000

1/ The resident population is defined as the number of persons whose usual place of residence is in an area, regardless of physical location on the estimate or census date. It includes military personnel stationed or homeported in the area but excludes persons of local origin attending school or in military service outside the area.

2/ The de facto population is defined as the number of persons physically present in an area, regardless of usual place of residence; it includes visitors present but excludes residents temporarily absent.

3/ Averages for 12-month periods centered on the estimate or census dates.

4/ Provisional estimates.

Source: Federal-State Cooperative Program for Local Population Estimates.

Figure 8-1
RESIDENT AND DE FACTO POPULATION: 1988

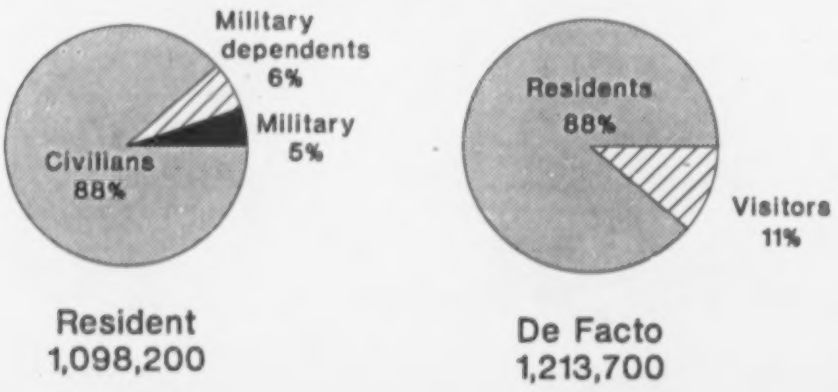


Table 8-3
RESIDENT POPULATION OF HAWAII AND THE UNITED STATES: 1970, 1980, AND 1988

Area	Population (1,000)			Percent change 1/	
	April 1, 1970	April 1, 1980	July 1, 1988	1970 to 1980	1980 to 1988
Hawaii:					
Resident population	769.9	964.7	1,098.2	2.26	1.57
De facto population	796.5	1,052.7	1,213.7	2.79	1.73
United States 2/	203,302	226,546	245,807	1.08	0.99

1/ Annual rate, based on the formula for continuous compounding.

2/ Resident population. Although no nationwide estimates for de facto population are available, the de facto total probably differs only slightly from the resident total.

Source: Federal-State Cooperative Program for Local Population Estimates.

Table 8-4
COMPONENTS OF CHANGE IN THE RESIDENT POPULATION: 1980 TO 1988

Period	Net change		Births	Deaths	Net migration
	Number	Percent			
1980 to 1981 1/	15,500	1.61	22,500	6,100	-900
1981 to 1982 2/	17,400	1.77	18,500	5,000	+3,900
1982 to 1983 2/	20,900	2.09	19,000	5,300	+7,200
1983 to 1984 2/	17,300	1.70	18,700	5,500	+4,100
1984 to 1985 2/	14,300	1.38	18,600	5,700	+1,400
1985 to 1986 2/	13,500	1.29	18,300	5,800	+1,000
1986 to 1987 2/	18,300	1.72	18,500	6,000	+5,900
1987 to 1988 2/	16,300	1.50	18,800	6,300	+3,800
1980 to 1988 3/	133,500	13.84	152,900	45,700	+26,400

1/ April 1 to July 1 (15 months).

2/ July 1 to July 1.

3/ April 1, 1980 to July 1, 1988.

Source: Federal-State Cooperative Program of Local Population Estimates.

Table 8-5
COMPONENTS OF CHANGE IN THE RESIDENT POPULATION, BY MILITARY STATUS: 1970 TO 1980 AND 1980 TO 1988

Period and component	All groups	Armed forces	Civilian population			
			Military dependents	Not military dependents		
				Number	Annual average	Percent distrib.
1970 TO 1980 1/						
Net change	+194,778	+1,911	+2,165	+190,702	+19,070	100.0
Natural increase	118,654	-447	36,233	82,868	8,287	43.5
Live births	161,831	-	37,234	124,597	12,460	...
Deaths	43,177	447	1,001	41,729	4,173	...
Net mil. separations 2/	-	-1,815	-	+1,815	+181	1.0
Net migration 3/	+76,124	+4,173	-34,068	+106,019	+10,602	55.6
1980 TO 1988 4/						
Net change	+133,500	-200	+5,900	+127,900	+15,500	100.0
Natural increase	107,200	-200	31,300	76,100	9,200	59.5
Live births	152,900	-	32,000	120,900	14,700	...
Deaths	45,700	200	700	44,800	5,400	...
Net migration 5/	+26,400	-	-25,400	+51,800	+6,300	40.5

1/ April 1, 1970 to March 31, 1980.
2/ Separations less inductions for armed forces.
3/ Includes error of closure.
4/ April 1, 1980 to June 30, 1988. Provisional.
5/ Includes net military separations.
Source: Federal-State Cooperative Program for Local Population Estimates.

Table 9-1
RECENT ECONOMIC AND DEMOGRAPHIC TRENDS: STATE OF HAWAII

Series 1/	Unit	Period 2/	Number	Percent change from same period in previous year
Resident population (p)	Persons	7/1/88	1,098,200	1.5
Armed forces	Persons	7/1/88	56,800	-2.2
Military dependents	Persons	7/1/88	69,900	7.9
Other civilians	Persons	7/1/88	971,500	1.3
De facto population (p)	Persons	7/1/88	1,213,700	1.1
Visitors present	Persons	7/1/88	136,000	1.3
Residents temporarily absent	Persons	7/1/88	20,600	31.2
Personal income	$ Million	1988	18,466	8.8
Consumer price index:				
Honolulu (CPI-U)	(1982-84 = 100)	1988	121.7	5.9
U.S. (CPI-U)	(1982-84 = 100)	March	122.3	6.0
Construction:				
Private permits 3/	$ Million	1st Q	363.2	63.5
Residential permits	$ Million	1st Q	135.8	36.0
New single-family units	Number	1st Q	1,181	29.4
New multi-family units	Number	1st Q	309	43.4
Commercial & industrial	$ Million	1st Q	137.6	136.4
Additions & alterations	$ Million	1st Q	89.8	40.1
Construction cost indexes (Honolulu):				
Single-family units	(1982 = 100)	Feb	138.0	5.0
High-rise buildings	(1982 = 100)	Feb	132.3	4.8
Employment (p):				
Civilian labor force	Persons	Jan-Feb	514,700	-0.3
Civilian employment	Persons	Jan-Feb	497,100	-1.1
Civilian unemployment	Persons	Jan-Feb	17,650	29.3
Unemployment rate	Percent	Jan-Feb	3.4	-
Total jobs	Number	Jan-Feb	528,250	3.3
Visitor industry:				
Total visitors (p)	Number	1st Q	1,672,190	12.6
Westbound	Number	1st Q	1,175,500	12.2
Eastbound	Number	1st Q	496,690	13.5
Visitor expenditures (p)	$ Billion	1988	8.3	29.7
Hotel units	Number	1988	69,012	5.7
Defense expenditures	$ Million	1987	1,856.9	4.0
Sugar production (p)	$ Million	1987	335.9	-7.2
Pineapple sales (p)	$ Million	1987	251.8	4.0

p Provisional estimates.
1/ Statewide data, unless indicated otherwise.
2/ Data for 1989, unless otherwise noted.
3/ Excludes data for Maui County, percentages based on comparable coverage.